

# OUTDOOR

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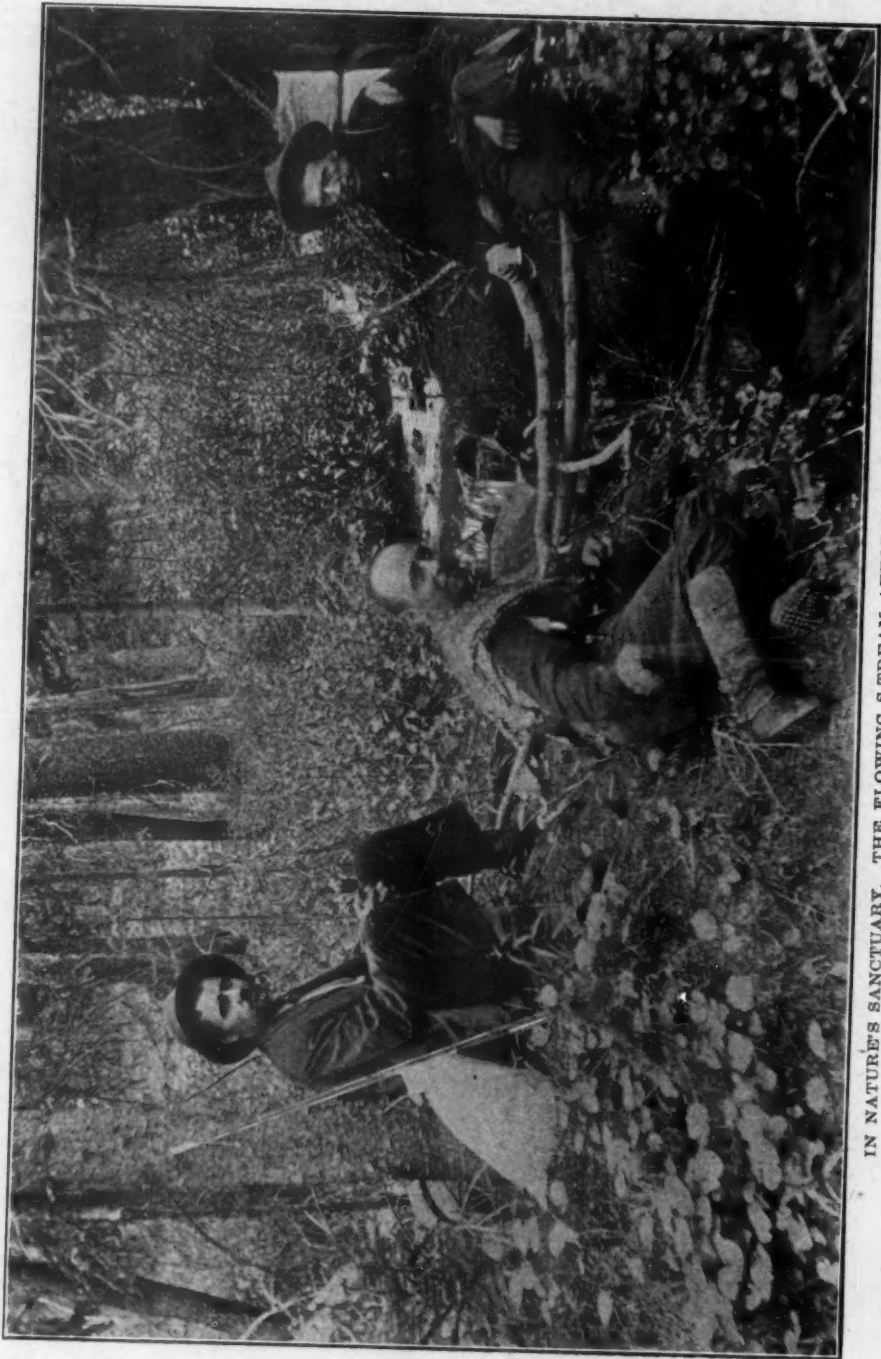
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IN NATURE'S SANCTUARY. THE FLOWING STREAM AFFORDS THEIR ONLY BEVERAGE.



Vol. XXXVII.

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## HUNTING IN MEXICO DURING THE REVOLUTION

TEXT AND PHOTOGRAPHS BY

RALPH EDMUNDS

To kill a big wild ram is, without doubt, the highest ambition of all big game hunters. The principal reason for this is the fact that the sheep is the wildest of all the game animals. Many hunters have spent years in a sheep country without ever having been able to get in range of a big ram. Unless the hunter is skilled in woodcraft he may not even see a ram, altho he may spend years in the country where they range. They can see about three times as far as can the human eye, and their hearing and sense of smell is equally acute. If the sportsman is hunting without field glasses, the sheep will often observe him and run without the hunter having seen them at all. Sheep have been known to become alarmed and run when seeing a human being three miles away. These animals usually range in a high, open country, where they can observe every approaching object for miles around. They are without doubt the most intelligent of all the wild animals, and any sportsman who has legitimately bagged a big, wild ram, may feel that he has accomplished the hardest

task confronting any man who is making a collection of big game heads.

Speaking from a personal standpoint, I can truthfully say, that to bag a big wild ram is the supreme desire of my life. I have killed several sheep but have not, as yet, had a decent shot at the coveted big ram. I have two small rams, several ewes, and a lamb. I have hunted in most of the good sheep country south of the Canadian border. I have seen several hundred head of sheep, and among them seven very large rams, but the big rams were always out of range, and they invariably saw me first. I have hunted the wild sheep in both Idaho and Wyoming without the desired result. Everywhere I went I was told that the big rams were "just over the hill." Nearly every hunter and trapper that I met knew of big rams; but they were like the bags of gold at the end of the rainbow—they were always just beyond. They were like the "acres of diamonds" in Conwell's great lecture.

Some years ago I read an article by Congressman Humphrey, of Washington, in which he described his experi-

ence in hunting the wild desert sheep of Old Mexico, and after rereading his article several times, I decided that this was the promised land, which I would find overflowing with wild game of various kinds. I accordingly corresponded with a guide who had acquired an international reputation as a hunter of these elusive animals. By wire and letter he guaranteed me six big rams, or a mixed bag of big rams, buck antelopes, and buck deer; provided I did not kill to exceed six head of male big game on the trip. As the Mexican revolution was in full swing, he not only guaranteed me the game above mentioned, but also guaranteed my personal safety. Just how he intended to make this guarantee of safety good, in case he failed to do so, I have never been able to clearly define, for the great American government, notwithstanding its towering strength as a nation, had for five years prior been unable to guarantee the safety of its citizens, or to protect their lives in Mexico; but my desire to round out my collection of North American big game was so intense that I decided I would risk my life in that dangerous zone for thirty days, in order to get the big rams that I wanted.

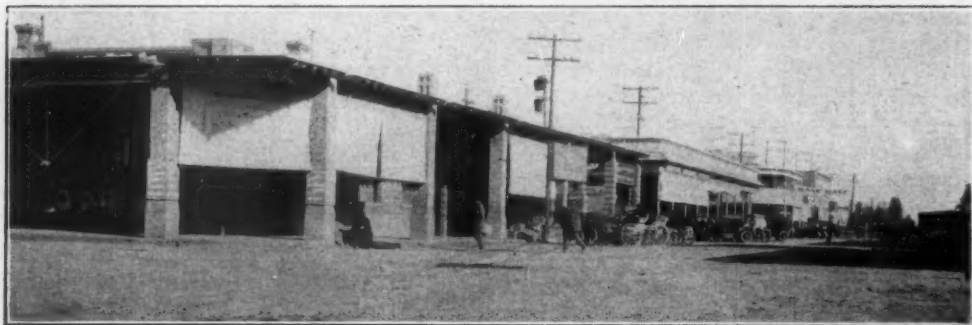
I arrived at Calexico, Cal., on January 3, 1916. There I met Stanley R. Graham, a young business man of Chicago, Ill., who was to be my hunting companion on this trip, and who had engaged the services of the same guide who was to take me out. I found Mr. Graham a most delightful companion.



U. S. CUSTOM HOUSE, CALEXICO.

He knew that I was coming, as I had wired ahead, and the evening I arrived in Calexico he had the hotel chef prepare for me a quail dinner, which showed his thoughtfulness at the very beginning. He was a young man 31 years of age, who had met with early success in a business way, which enabled him to devote about one-half of his time to the hunting game. His experience as a hunter had covered most of the North American continent, and he knew the art from A to Z. He was patient, generous and good natured thru all the trials and difficulties that beset us on the hazardous trip that we took into that bandit-ridden country. I may never see him again, but I shall never forget him, nor will I forget the month we spent on the barren, waterless deserts of Mexico.

My contract with the guide provided that he should furnish his own services, a second guide, a cook, a horse



CALEXICO, CALIF., THE BORDER TOWN.



MEXICAN CUSTOM HOUSE, MEXICALI.

wrangler, all provisions, a sufficient number of horses, license permits, duty on shells, etc. I was to be taken from the hotel in Calexico, and returned to the same for a given price. This relieved me from the necessity of looking after the details, and as he was familiar with the country to be hunted, I left the matter of provisioning and outfitting to him, thinking that he was well able to look after such matters, since he had had about fifteen years' experience in handling hunting parties. I did not find out my mistake in this respect until we were too far on our way to turn back, but in all my hunting experience, I have never gone out with so poor an outfit, nor with such a meager lot of food supplies. After we left the border there was not another opportunity to buy anything in the way of supplies, and as the country we were to hunt in was absolutely uninhabited, I felt certain the guide would take along an ample supply of food. As it was, we ran out of such articles as butter, condensed milk, potatoes and lard in about ten days. At the end of twenty days even the flour was running low, and we had to stint ourselves on that. The last few days of the trip our rations consisted largely of meat. The live stock consisted of one fairly good saddle horse that Mr. Graham rode on the trip, another saddle horse that was absolutely worthless as a mount, six scrubby little out-

law Mexican mules and six small burros, two of which nearly collapsed before the trip was over. The bridles, riding saddles and pack saddles were rickety affairs, which one could not get a northern outfitter to take as a gift. The cooking outfit was about half complete, and part of that was ready for the junk heap. Should any other misguided hunter ever contemplate a trip into Mexico, let him remember to take along his own outfit, complete; buy his own provisions from a list prepared by himself, hire his own horses or mules, as the case may be; also hire all help and take the guides along at so much per day. In other words, run your own outfit. Leave nothing to Mexicans, for they are indifferent, careless and shiftless. They care not what the morrow may bring forth. They seem to care very little for the today. For them there is no past, no present and no future. If a Mexican can get a few pounds of beans, a sack of flour, some coffee and tobacco, he is contented until that is gone, and then if he does not starve to death in reaching a place where he can get more provisions, he will begin looking for something else. The idea of planning the future never seems to enter his head. They are satisfied with very little and as a consequence do not get much out of life.

Some people may think that Mexico is a safe country to hunt in, notwithstanding the fact that it is still in revolution. I want to inform my readers that such is not the case. Sixteen



THE PACKS.

Americans were shot down in cold blood in Mexico four days after we crossed the border, and this atrocious crime was committed not far from



A MEXICAN HAS TROUBLE WITH ONE OF THE OUTLAW MULES.

where we were. There is no government in Mexico that should be dignified by that name. The Mexican people are tribes of Indians, respecting no law except the law of force and violence. To kill an American down there is looked upon as an act of heroism on the part of the murderer. The Mexican people at this time know that the American government will give no protection to its citizens while in their country, and as long as such is the case, an American citizen is committing an act of folly in crossing the border, for every Mexican knows that he can shoot you down and that nothing will be done either by our government or by the so-called government of Mexico. Don't forget that most of

the Mexican people are bloodthirsty Indians, and that they hate an American with all the strength of their cruel, ignorant souls. One cannot blame them so much, if one but recalls our war of conquest against Mexico, and also the fact that the Mexican people have been crushed by centuries of misrule. They have been plundered and oppressed by their leaders until their lot is much harder than it was before the advent of the white man into their affairs. They would be happier if they were back in the ages when they lived in caves and made their living with bow and arrow. They do not seem to know how to apply the scientific implements of modern civilization to their affairs, and as a consequence



OUR OUTFIT ON THE TRACKLESS, WATERLESS DESERT OF MEXICO.



their country seems to be retrograding and fast going to decay.

Getting our rifles across the border proved a most difficult task. It took us some time to get them thru the American custom house, as there was an embargo on firearms into Mexico, but the long delay was in getting the guns thru the Mexican custom office. At first the military commander at Mexicali refused point blank to allow our arms to pass. We then wired to the governor of Lower California for permission, and then we waited. We would go to the telegraph office and ask if any word had been received, and there we would be directed to some military chief. We would go to the office of the designated official, and from there be directed to some one else. We called on about every official in Mexicali, only to be told that they could do nothing for us. We waited for hours for certain officers to keep their appointments with us. We knew better than to try to hurry them, for if you attempt to hurry a Mexican he will tell you to come back tomorrow. I have spent several months in Mexico, and have yet to see one of them hurry. We had to be very courteous to these Indian officials, for we knew that politeness meant everything in that country. When we entered the august presence of one of those dirty Mexicans,



ON THE TRAIL IN MEXICO.

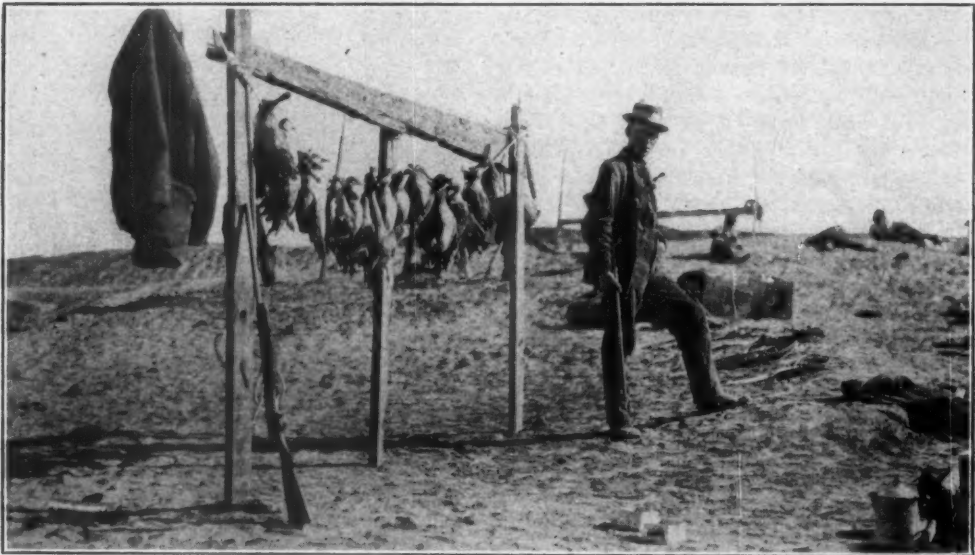
who had probably never taken a bath in his life, we removed our hats, smiled and bowed and lavished upon them our sweetest phrases. Imagine an American paying homage to a dusky, trop-



A COCOPAH INDIAN MANSION.

ical Indian as if he were Caesar! But there was no other way. This we continued to do for three long, trying days, when much to our surprise, the military commander signed the necessary papers, and we were told that we might take our rifles into Mexico and hunt for thirty days. No excuse was offered for the vexatious delay, for they had none. They never intended to refuse us the permits, but it was simply the Mexican way of doing things. Within thirty minutes an American official would have done what it took those sleepy Mexicans three days to accomplish. Is it any

That night we camped on the shore of the Volcano Lake, at the west end of the great levee that holds back the flood waters of the Colorado River, and thus prevents the flooding of all the Imperial Valley. It was the break in this famous levee that flooded the Imperial Valley and formed the Salton Sea. Most of the Imperial Valley is below the level of the sea, and should this levee give way there would be nothing to prevent another inundation of that rich tract of land. Volcano Lake is made by the Colorado River, and it in turn forms the Hardey River, which flows into the Colorado River just be-



THE AUTHOR AT VOLCANO LAKE CAMP.

wonder that Mexico is a hundred centuries behind the rest of the world?

After crossing the border we traveled for twenty miles thru the southern end of the Imperial Valley, where we saw thousands of acres of cotton fields. Chinamen were picking the cotton, and it was being hauled to the American side in great wagons.

After leaving the cotton plantations we came to a brushy plain and saw many coveys of the little Mexican quail. Graham and I shot several and we found their flesh most delicious.

fore reaching the Gulf of Lower California.

The next morning Graham and I shot thirty-six ducks to supply the camp with fresh meat until such time as we should kill a sheep, antelope or deer. This is the winter home of a considerable number of ducks.

For the next two days we traveled slowly down the Hardey River, where we saw hundreds of ducks, geese, cranes, brants and quails. We were traveling down the east side of the Cocopah Mountains and thru the Co-

copah Indian Reservation. These Indians are as black as ebony, and their long, black hair hangs loosely about their shoulders.

On the morning of the fourth day we left the river and rode out upon the desert, reaching the Tres Posos (Three Wells) at about 4 p. m. These three wells have been in existence for a hundred years, and contain the only water to be found on that desert. The wells were about three feet in depth. The water was slimy and filthy. It was as green as grass, tasted badly and smelt worse. The Mexicans had traveled that route and used that foul water for a century, and yet it had never dawned upon their minds that they might dig another well, in the sand near by, and get decent water. Graham took one taste of the water, and instantly said that he could remedy it. He took an old shovel, that some one had left near the well, and in a few moments dug another well, into which the water seeped. This new well gave us water that tasted brackish, but otherwise it was all right. Except for this one spot, there is not

a drop of natural water to be found in all the Tenaja and Pinto ranges. There is not a single creek or spring. The only water to be found is that caught by the natural water tanks in the rocks when the cloudbursts come in the summer. The water that we drank on the balance of the trip had fallen over five months before, and the reader can imagine the condition in which we found it, after it had lain under the hot, tropical sun for that time. Covered with green scum, alive with tadpoles and squirming myriads of microscopic life, one would not think that it would tempt one; but when the desert thirst comes over you, you will drink it, and enjoy it, as you never enjoyed water before. I would have drunk it had I known that it would have killed me in my tracks. These tenajas are about twenty miles apart, and a stranger would soon perish in that country, for the water holes are hard to find. Last August forty-seven men started across that country, and forty-five of them perished from thirst.

(TO BE CONCLUDED.)

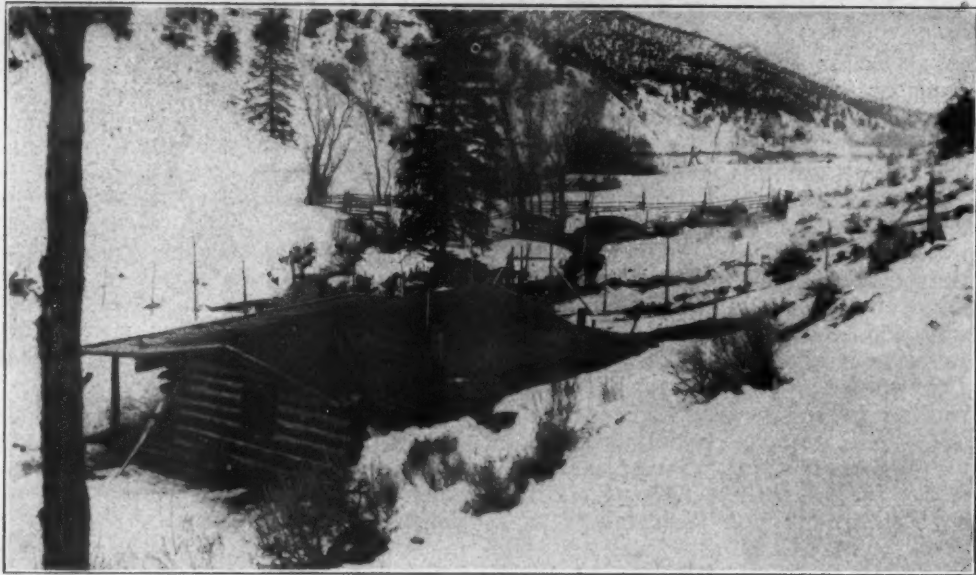
### "My Hoss."

Wal you pesky, gol-darn'd critter! You're an awful lookin' thing,  
For a self-respectin' cowpunch to have runnin' with his string.  
You're gettin' that plumb gentle that you almost make me weep;  
Say! I'll sell you to a herder for a wrangle-hoss on sheep;  
An' I reckon that'll learn yer, you consarn'd homely chump,  
When you've got a cowpunch rider to wake yerself and hump.

Whoa! I'm gonna cinch this saddle so yer needn't puff an' blow;  
No use to toss that head of yours—you're getting too darn slow  
An' sleepy for a cowhoss, you're losin' all your speed—  
I reckon on a sheep ranch you'd be just the horse they'd need;  
An' you'll be sorry, cayuse—for those sheep, they sure smell strong—  
That when you had a cowpunch rider you didn't hike along.

Say! I was only foolin', hoss; no need to look so sad;  
You're the top hoss in my string, ole boy; the best I ever had.  
No need to bite my ear off, you darn'd ole turtle dove!  
You're actin' like a suffragette that's gone an' fell in love.  
Now, mooch along, ole-timer! Say! I'd rather see you dead  
Than another hombre slippin' a bridle on your head.

ERN WEST.



THE SCHULTZ RANCH, FROM WHICH WE HUNTED LIONS, FEBRUARY, 1916.

## THE COUGAR

TEXT AND PHOTOGRAPHS BY

J. A. McGUIRE

In the minds of a large majority of our people the cougar (mountain lion of the West, "painter" or panther of the East and South, puma of South America, etc.) is an Ishmael of the forest, a dreadnaught in the category of wild and dangerous beasts—ready to pounce upon man by day from a sheltering limb or trail him to his doom by night. Even among the sporting classes the cougar is not so very well understood. We frequently hear sportsmen ask questions about the ferocity of this animal that shows their total unfamiliarity with the natural traits of the beast. Campers return to the city from their maiden trip in the hills and tell thrilling tales of how in the middle of the night they were awakened by hearing the dreadful scream of a cougar—always described as a weird, soul-stirring wail resembling the cry of a

woman in distress. But ask a dozen guides, trappers or men who spend most of their lives in the hills, and ten of the number will tell you that they never heard a mountain lion cry.

While the cougar is the most arrant coward that stalks the forests, yet he, like all other cats, is very destructive to the wild life of our mountains, and especially to the deer. While lions often kill cattle, colts, hogs, sheep, etc., yet their principal diet is deer. It is no exaggeration at all to say that a full-grown lion will kill, on an average, a deer a week the year round. And the worst part of it is that, unlike the Indian, they don't conserve the meat by eating all they bring to bag. A lion will kill a deer today, and if he doesn't happen to be particularly hungry, will rake sticks, leaves, grass or snow over it, and wander off for a mile or so and

lie down. Next day he will probably journey back to his "kill," eat what he wants and go back again to his resting place. This he is apt to repeat for a few days; yet, on the other hand, instead of following this system, he may take to wandering thru the hills after his first meal, leaving three-fourths of his deer behind. If in the course of these wanderings he should chance upon another likely deer he will kill it, too, if a favorable opportunity is presented. And on he goes, day after day, and week after week, following the wake of the deer, always in their tracks, always exacting from them the toll of a pirate and a poacher. If it is their migrating period and they change their location for the more favored spots down country, he goes with them.

A great many misconceptions exist regarding the kind of meat that a lion will or will not eat. It has been claimed that they will eat only that which they kill themselves; but I believe that if game is scarce and they are very hungry they do not object to eating meat that they do not kill themselves. They will eat meat that is left out over night by hunters, so I imagine that if they came across a carcass, or the remains of one, and if they were very hungry and fresh meat was hard to obtain,

they would eat it. I do know that much of their eating habits depends on the condition of their stomach. For instance, if they kill a deer while very hungry they will lie around the "kill" until it is all eaten. They will satisfy their hunger, then go off to a sunny rock or warm spot where they will lie for many hours, possibly a half day, or a day, returning again to eat, repeating this practice until the last semblance of meat, and sometimes much of the bone and hair, are gone.

If, however, they should make a kill where game is plentiful, or while the weather is cold enough to freeze the meat, or at a time when they are not hungry, they are very apt never to return to it. They have been known to be trapped by hunters while they were trapping for bears, so it would seem that at certain times they are not very particular what kind of meat they eat.

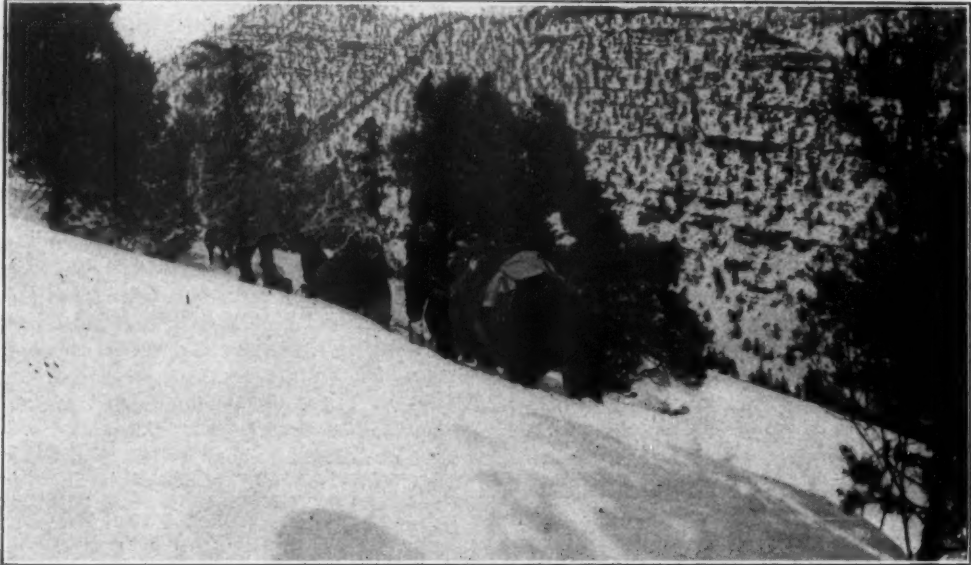
While on the subject of cougars it would be unfair to omit mention of some of their depredations that are often attributed to the bear. I believe that much of the stock that is killed on our mountain ranges at whose carcasses bears are found feeding is killed by cougars. These beasts have been known to kill full-grown horses, cattle and wapiti. Following the course of their



THE FIRST DAY WE RODE HORSEBACK, CARRYING OUR SKIS FOR POSSIBLE EMERGENCIES.

recognized habits after making a kill, it is fair to suppose that in at least half the cases where they kill stock they would either leave it voluntarily after getting their first meal or be driven from the carcass by bears. The bear continues feeding on it until all is eaten up—sometimes remaining around to lick the bones for several days after practically all the flesh has been eaten—and along comes the stockman and finds Mr. Bear "with the goods on him." Naturally, seeing only bear tracks about the "kill," as the cougar tracks have by this time been erased,

sticks, grass, etc., told us so. In about a week we returned to that country and looked for the carcass. Nothing remained but a few of the larger bones and some scattered hair. Bear tracks had covered up the lion tracks, so we knew a bear had been there and eaten what the lion had killed. In fact, we trailed that bear for several miles, but lost it. I have heard of many similar instances to this, and know that they do occur, and realizing how much fuss is naturally created by a stockman over the loss of even a calf, I feel quite certain that the bear has earned thru



THE HORSES GET STALLED IN THE DEEP SNOW.

he concludes that his cow, or his colt, or whatever it happened to be was killed by a bear, and he immediately heaps malediction in big chunks on the bear that he supposes did the work, as well as on the whole ursus family in general. I have several times related an incident I encountered in Wyoming, but it will bear repetition. I was hunting for bears and lions on the North Fork of the Shoshone in 1907, with Johnny Goff, Ned Frost and Fred Richard. We came upon a deer carcass that had been freshly killed by a lion. The tracks, the scratched-up

such occurrences as I have related a reputation for killing that does not properly belong to him.

Regarding my statement above about bears running off cougars, I wish to say that, altho I have in one or two instances heard of cougars attacking bears, yet I have never known of an authenticated case; and I feel certain that no cougar, however large, would have the temerity to attack a full-grown bear, however small it might be. I believe that at certain times of the year bears might follow the trails of cougars merely for the purpose of eat-

ing up their "kills," and this very fact may be the foundation for some of the stories we hear to the effect that bears prey upon deer. Naturally, of course, they do not.

The size to which cougars grow is another myth that might as well be exploded here as anywhere. I have read of the 11-foot cougar—in fact, one of my hunting friends once sent me a column clipping from a newspaper relating the killing of an 11½-foot cougar. While Roosevelt was hunting cougars with Johnny Goff in Colorado in 1901 a cowboy came to the ranch where they were stopping with the news that a certain man had killed a 10-foot cougar some distance away. When the then Vice President told him that he would give him \$1,000 if he would bring in to him a 10-foot cougar the man was spellbound, and disappeared, never to return. I don't believe there ever existed a 10-foot cougar, very likely never even one of 9 feet in length. I don't mean that there never was a skin that would stretch to the lengths mentioned, for when they are "green" it wouldn't be hard to stretch the skin of an 8-foot cougar to 10 feet; but that is not the way to measure them. The animal should be stretched full length when freshly killed, before skinning, of course, and the space from the tip of the nose to the tip of the tail will constitute its correct measurement. The longest one I ever knew of was killed by a party with Johnny Goff in Colorado fifteen years ago and weighed 227 pounds on spring scales. I know this weight is correct. The length of this beast was 8 feet. The average weight of these animals is about 125 pounds.

Scott Teague, the Colorado lion hunter (with whom, by the way, I enjoyed a cougar hunt last February), related to me the story of a rather extraordinary experience that he witnessed while hunting in Colorado many years ago. The facts as given me by Teague are as follows:

In September, 1905, he was hunting deer fifteen miles above Dolores, Colo., on the West Dolores, in the company

of Charley Johnson and a man named Tibbits. While looking for deer, old Sampson, his best trailing dog (which they took along to use in case of getting a chance to run lions, bears or cats), struck off on a fresh lion track. They were hunting below two ledges, the lower one about twelve feet and the upper thirty feet high, and while Sampson was following the lion track at the base of the lower ledge, Teague was surprised to see the lion crouching on the ledge above the path of the dog. He was only armed with a little .22 Stevens pocket pistol, or he could have killed the lion from where he was. While the dog was passing beneath the beast, the latter sprang, landing with his fangs on Sampson's neck and breaking it. Picking up the dog he slung it over his shoulder, and carried it thru an opening to the top of the ledge, from which he had just leaped, and was carrying it toward the high ledge, or rim, when Teague, incensed at the loss of his dog, came up closer. The lion stopped, dropped the dog and snarled as Teague approached to within 100 feet. He had expected to shoot, even with the little .22, as he thought he could bore a hole to the animal's brain thru an eye, but when he saw this exhibition of courage, he retreated 100 feet and blew his horn three times, when his companions, who were leading the horses, came up. Another dog, a foxhound, was with them. When Johnson heard what had happened, he handed his .30-30 to Teague and told him to go and shoot the lion. Teague took the gun, and accompanied by the other dog, advanced to where the lion stood with the dog. During the interim the animal had not changed his base, and was yet defiant when the second dog rushed toward him. Instead of running, as ninety-nine out of a hundred lions would do, he stood his ground and would have killed the other dog if given a chance. Teague killed him, and found that he was very thin of flesh, while one of his front paws was gone from just below the dew claw. He had undoubtedly been

caught in a trap, the wound having healed, but leaving him in a condition in which he found difficulty in killing as much as he needed. This made him irritable, Teague believes, which accounted for his mean disposition. Hunger had driven him to kill the dog. He was a very large male.

It has been my pleasure to have hunted lions with such great guides and hunters as John Goff of Wyoming (two trips), Homer Goff of Colorado, Frost & Richard of Wyoming, Steve Elkins of Montana (two trips) and Scott Teague of Colorado (two trips), and while out with these men and their dogs I have seen many remarkable occurrences in the cougar family, besides learning much of the habits of these big cats thru listening to the experiences of these men, told while sitting around the campfire. In his day Johnny Goff was the greatest lion trailer that ever blew a horn; he has of later years been largely superseded by Steve Elkins, Scott Teague, Chas. Bakker and other almost equally efficient guides. Some of these men have made quite a common practice of roping lions in trees and carrying them to camp alive. Mr. Bakker especially has been quite successful at this work, and lately staged a stunt of this kind for the moving pictures that is being exhibited with success at the shows.

There is no regular breeding season for cougars. Pregnant lions have been killed during every month of the year, the period of gestation being fourteen to fifteen weeks (bobcats, sixty-three days). They have at a litter two, three, four and five, the latter number being of rare occurrence. The young are weaned at the age of about 1 year.

The attacks upon human beings by cougars have been greatly exaggerated. I have never known of an authentic instance of a full-grown person being attacked by one of them without provocation; but I do know of a few instances where children have been attacked—in some cases fatally. Yet Teague told me that he believes, had he been so unfortunate as to be walking

under the ledge referred to previously in this article, instead of the dog, he would have been pounced upon just as had the dog. This lion was decidedly in a different mood than any that he had ever come across before.

The best time to hunt lions is when there is a good tracking snow on the ground. While I once killed one in Wyoming that had been trailed and treed without snow, yet after what I have learned since then, I should consider my chances of getting a lion on bare ground only about one in ten as compared to tracking it in snow.

On February 15th last I left Denver for McCoy, Colo., for a short lion hunt with Scott Teague of Yampa, Colo. McCoy is located 150 miles northwest of Denver on the Moffat Road, and has the distinct advantage, from a fishing and hunting standpoint, of comprising but a half dozen buildings, including a hotel, a general merchandise store, a livery barn and three houses. Yet everything that the hunter or fisherman desires may be obtained here, such as good meals (fresh eggs, milk and butter being among the local products), comfortable beds, saddle and pack horses, provisions, etc.

Teague left Yampa (twenty-six miles west of McCoy) with the outfit (two saddle horses and one pack horse) the same morning that I left Denver, we both arriving at McCoy about 6 p. m. The following two days were spent covering the cedar hills thereabout, but nothing larger than cat and coyote tracks were seen; so on the morning of the third day we left for Schultz's ranch, twenty-five miles down the Grand River, located a couple of miles up from the latter stream on a tributary called Red Dirt. Altho living in a two-room cabin with his wife and two children, Mr. Schultz made us welcome and comfortable for the three days consumed in the remainder of our hunt. Besides his hospitality he accompanied us on our daily trips, enjoying the sport as much as we did, and lending us valuable assistance on various occasions.



Our dogs consisted of the following: Cleo, foxhound; Sampson, English buckhound; Jim, half bloodhound and half Airedale; King, bloodhound. Cleo was a well-trained dog, 10 years old; the others were younger and less experienced dogs, taken along more for the training they would receive than for any work that was expected of them—altogether, a sufficiently capable pack for ordinary lion hunting.

The snow at the Schultz ranch (elevation 6,500 ft.) was three feet deep on the level, which compelled us to resort almost entirely to snow-shoes for our traveling—a fact that we learned to our regret when we tried to scale one of the surrounding mountains on horseback the first day. We got stalled in snow up to our horses' necks, and abandoned them during the remainder of the day for our snow-shoes. This latter mode of travel we stuck to for the balance of our hunt. The alternate banks of snow and protrusion of rocky ledges on the steep mountain sides made for us the slowest and most laborious travel I have ever experienced while hunting. This intermingling of rocky formations in the snow caused us more grief than I care to tell about, and I'm afraid lost us all, at least at certain times, much of the piety and Christian charity which we were supposed to possess at home. Teague said he saw a purple halo around the spot where I accidentally got buried in the snow on one occasion, while Schultz admitted that if his pastor or any member of his church heard what he had to say after a certain plunge which he took from a rocky ledge into a snow-drift, he surely would be "churched," with all the rigors that go with the functions of that ordeal. We spent more time in putting on and taking off our snow-shoes than we did in traveling, particularly while going up the rocky slopes of the steep mountains. Snow-shoeing for pleasure is far different from using these contrivances while following a lion track that goes under ledges, leads up over precipices, and then pitches into a mass of scrubby cedars, whose limbs reach



LION TRACKS, FEBRUARY, 1916.

The photograph shows them leading under the cedars. The short, exposed tree trunks give an idea of the depth of the snow.

pretty close to the ground in deep snow.

During the second day out while hunting from the Schultz ranch we ran into a comparatively fresh lion track. Teague said it was about a day old, and his statement afterward was proven true. The track was discovered in a section of country where deer were plentiful, as evidenced by their sign everywhere, so we knew it wouldn't lead us very far before we would either jump the animal or find its "kill." After the track freshened up a bit Cleo took the trail with a loud tongue, followed by Sampson and the other two dogs. At a couple of points on the lion trail the tracks appeared so clear in the snow that I stopped and photographed



LOOKING DOWN INTO THE MUZZLE OF A 3-A CAMERA THAT WAS HELD  
BY THE AUTHOR IN THE TOP OF A NEARBY PINON TREE.

them. They led about as straight as the crow flies to the remains of a deer that had undoubtedly been killed by it a couple of days previous. Here we found all kinds of lion tracks, and after cutting off the four deer feet as souvenirs, we followed the tracks of the dogs and lion, which led away in the same direction we had been keeping. Teague was far ahead of Schultz and me here, as it is essential for at least one man to keep within hearing of the dogs. Soon the trail led us over a bad ledge, where the dogs seemed a bit puzzled, as the lion had circled here, and in circling had touched another but older track. In the puzzle of working out the trail on this rocky ledge, and at a point where the lion had jumped from the ledge, the dogs took an old trail which led off to some high cedar cliffs a mile or so away. As the dogs didn't seem to continue with the same enthusiasm as before, Schultz and I feared that they were not following the fresh trail, especially as at the ledge we had thought we saw a lion trail leading over the ridge in the other direction, or towards Red Dirt. But as Teague had followed the dogs, we remained on our ridge, a gulch between him and us. We considered it best not to follow him, as we thought he would have to give it up soon, which he did, and joined us, when we all snowshoed to the ranch, arriving there in time for a fine dinner gotten up by Mrs. Schultz.

After a bounteous meal Scott rode down a mile below the ranch that evening to see if the lion we had trailed that day had crossed Red Dirt, as Schultz and I had thought possible. He returned with the good news that he saw the track of the lion made that morning crossing Red Dirt and leading up one of the ridges to the west.

The next morning (February 21st) we arose at 5 and by 7:30 were off—this time to follow the track crossing Red Dirt, and which was now about twenty-four hours old. We took our snowshoes, and after scaling the first bluffs rising from the stream we noticed with pleasure that Cleo took a

new interest in the track and went bellowing along, with the other dogs close behind. Soon, however, the sound of the dogs' voices died away as they sped on over the hill and down in the gulch. Teague again got ahead of Schultz and me in his desire to keep close to the dogs. After traveling over ledges and floundering from rocks to snow drifts, and vice versa, I heard Cleo's voice clear and bell-like, and remarked to Schultz that I believed the lion had treed. Later when we again stopped to listen our suspicions were confirmed. We hurried on, as that woods music was irresistible. The rocky nature of the country made our progress slow. Buckling on snowshoes in the snow area and then unbuckling and carrying them over ledges and rocks was not conducive to greyhound speed. Soon the canon below us seemed to virtually open up and fill our ears with dog music, and above it we heard the yells of Teague. When we came up we saw, about thirty feet up a big spruce tree, a tawny-colored spot in the foliage that could hardly be anything else but a mountain lion. She (for it proved to be a female) stood out on a limb two or three feet from the tree trunk, perfectly composed and apparently satisfied at the coup that she thought she had worked on the dogs. This position was the same as that in which she had stood when Scott came up, and the very same that she maintained until a ball from my .30 U. S. tickled her heart. After patting Cleo, the foxhound, affectionately, and exchanging felicitations with Teague, I climbed a pinon tree that stood twenty feet away from the big spruce and unloaded a half dozen 3-A bullets at her. Then came the act which I had traveled 200 miles to perform.

The spitzer entered back of the elbow, cut thru the lungs, grazing the heart, and tore a hole as big as your fist on the opposite side, a few inches back of the shoulder and two inches below the vertebrae. Of course, she left her perch like a chunk of lead,

striking a snow bank and bounding down the gulch some twenty-five feet, where the dogs jumped in and assisted in the obsequies. She hadn't a sign of fight when they reached her, as at the conclusion of her leap she was apparently as limp as a rag.

The steel measure touched even 7 feet before she was skinned—this, of course, from tip of nose to tip of tail.

After skinning her we cut her stomach open, finding nothing but deer hair and pieces of bone from a half inch to

her) demise increases the deer supply by at least fifty a year. If this fifty deer were allowed to increase in their natural way without molestation from animals or man, it would only be a comparatively few years until their progeny would liberally stock every mountainous state in the Union. That such a supply could possibly come from the deer that would be killed by one cougar in one year is almost unbelievable. In other words, if fifty deer (forty females and ten males) were



TEAGUE (LEFT), SCHULTZ, THE DOGS AND LION. DARK SPOT ON LION'S SIDE IS CLOT OF BLOOD THAT FORMED WHERE BULLET EMERGED.

a couple of inches in length and about the thickness of a slate pencil or a lead pencil. This showed us that her last meal had practically been digested.

Scott carried the hide, and we all floundered in the snow off the ridge back to the ranch, where we arrived at 2 p. m. A great spread here awaited us, the creation of Mrs. Schultz, who, altho she has lived almost a lifetime in the Rockies, had never before seen a mountain lion.

I have never been much of an admirer of the cougar, and when I kill one I gloat over the fact that his (or

preserved for ten years, their offspring would amount to 25,000 deer, in round numbers; and in addition there would be enough bucks over to allow a few thousand being killed for sport.

Our deer breed and rear their young that the lion may have food and sustenance. The season on deer may be closed to sportsmen for all the twelve months of the year, but the mountain lion is no respecter of game laws, and kills and leaves to waste that which the sportsman, thru his abstinence and his conservation, would save and perpetuate.

# SMALL BORE EXPERIENCES ON BIG GAME

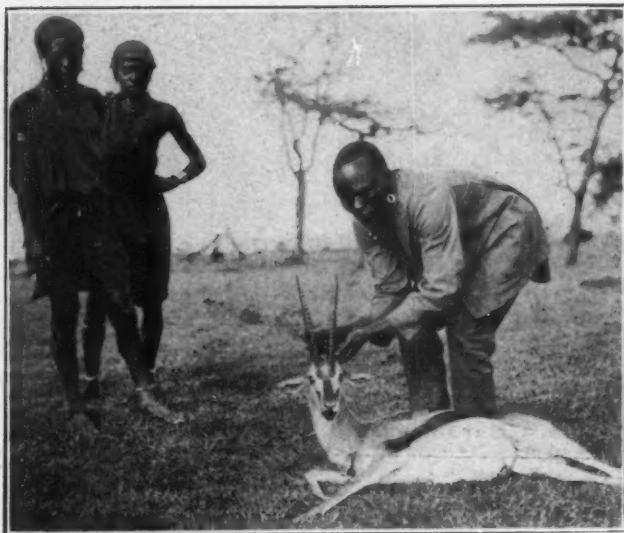
CHAS. COTTAR

When a new model rifle comes on the market every sportsman has an almost fiendish desire to try it out on living targets. I am no exception. When the new .250-3000 Savage was announced I procured one and have tried it pretty thoroly against African game. The results will, perhaps, be of interest to many who have doubts and desires regarding the weapon. Following is a list of the results: Fourteen Thompson's gazelles, nineteen shots. Not a buck escaped that was hit. These bucks weigh around sixty-five pounds and are natty little chaps with remarkable vitality for a buck so small. They were all shot within three miles of Nairobi, British East Africa, where they were used to being shot at daily, and the distances ranged from 100 to 225 yards.

Then the Mrs. tried the gun on wildebeeste—the animal lying in the grass—at 225 yards. First shot went high; the animal jumped to his feet and received the second shot at the shoulder joints, breaking both forelegs. The animal is the size of a yearling steer.

We left the boys to skin and cut up the meat, and started for camp. A wild pig jumped from the grass and tore out with the speed of a quarter horse. The first shot went high, and the second landed in the hips.

The African wart hog, is among the most tenacious beasts in existence, and the skin and tissue the hardest to penetrate. Here the gun showed its weak-



THOMPSON'S GAZELLE—IDEAL GAME ON WHICH TO USE THE .250.

ness. The bullet penetrated to a depth of two inches, where it remained, flattened and disintegrated. The distance was forty yards.

Next a kongona came in for a pummeling. At 200 yards he took the first one in the shoulder. He was unaware from whence it came and ran close in, receiving five more in all parts of the body, going down at fifty yards from the last shot to the kidneys. None of the bullets broke bones, and the penetration was insufficient for a beast so hard and tough. The animal will weigh around 400 pounds; and is very hard to bring down.

Three bush bucks went down with a shot each, and another escaped with a recorded miss. These chaps are of about eighty pounds weight, and the distance 85 to 140 yards.

A water buck was the next experiment. My 9-year-old son used the gun at 225 yards on a buck of 350 pounds



THE MRS. TRIED THE GUN ON WILDE-BEESTE. HEAD PROPPED UP.

weight, scoring in the lungs, behind the shoulder, the bullet passing between the ribs. The buck ran 350 yards, lay down and succumbed in thirty minutes. The bullet was in the first lung, not badly flattened.

My next experiment was on a hippo. I was trying for a place at which we could ford the Tana River with porters. I swam out about twenty yards and let down to learn that the water was around ten feet deep. On emerging, a hippo—an enormously large one—was blinking at me at about five yards distance, and the boy had him covered with the little rifle, the only weapon we had with us. He excitedly asked if he should shoot, to which I as excitedly answered "No!" as I beat the water to a foam in a hasty retreat to shore.

A shot in the forehead, at about ten paces, killed the great animal dead. I thought it a marvelous feat for a gun so small, but a few days later I saw a Boer kill a hippo with a .22 long, with a forehead shot. The skin, at this point,

is a quarter inch, and the bone is of like thickness.

My older son brought a zebra down with a chest shot at seventy-five yards, the bullet reaching the large vessels of the heart. The animal ran a half mile, death resulting from hemorrhage.

My next opportunity to use the rifle was on buffalo, but I declined, substituting the .30, '06 Winchester, with which I only scored a badly wounding shot at a fleeing animal in thick cover in which he effected an escape.

We went into camp on the Tana to wait for it to subside. Crocodiles were plentiful, and I tried the weapon on two different individuals, both of which escaped.

Then we went out to expose sinema-film on rhino. The weather was rainy and hot—ideal for irritating these beasts—and we had some real excitement—really more than we were looking for. The first rhino sighted—at 100 yards—evinced signs of fight, and the camera was at once erected, the older boy operating. The rhino was a large bull, and I hadn't the "nerve" to face him with the little .250; I used the .405. The camera balled up, and I brought the animal down with a shot



THE IRONCLADS OF THE ANTELOPE.

The Oryx, on which the .250 failed. The dead animal is here shown with head propped up.



HIPPO SHOT WITH A .250-3000 SAVAGE.

into the nose. He got up and staggered away, while we adjusted the camera, and then followed. At 200 yards the camera was erected and the .250 selected. Instantly the animal saw us; he charged with all the determination of a wounded demon. At thirty-five yards I opened fire, scoring four hits in the forehead, the last one putting the animal down at eight yards. Two bullets penetrated the skull, and two flattened on contact. Allow me to say that I will never try such an experiment again—and will never forget this one. Behind me the steady “click” of the camera and in front 4,000 pounds of infuriation with a horn on its bow, headed straight on, with only an 87-gr. missile to stop it. It isn't a pleasant thought, even yet.

For a month I used the gun to shoot pot meat, killing five stine-buck, two duiker and five dik-dik at fifteen shots, one hit duiker escaping—all shot under fifty yards, and all bucks weighing under forty pounds.

Two Grant's gazelle took a shot each at 125 and 165, both reaching cover, and both requiring a shot to finish them off. They are near the size of the American prong-horn, and a hard buck to put down.

Oryx were next tried. These fellows are the ironclads of the many antelope. They are quite wary, and I shot from 275 to 325 yards—in all eight shots into three animals, all of which escaped, kicking and pitching and switching their short tails as they went. Of course I have no knowledge of the damage done to these tough bucks, but will say that I have an oryx cape in which are stuck two “umbrella-point” .30, '06 bullets, which failed to penetrate the skin at 225 yards, and the animal still kept his feet after receiving nine hits with such bullets, all

around 225 yards. They are among the tough ones.

An impalla, running, received a shot too far back, and escaped to the cover of a small but dense thicket. I followed. It was raining steadily, the ground was muddy, and in the small path where the antelope entered the brush was the fresh tracks of a lioness. A few minutes' search raised the feline, and the little rifle, most likely, scored its first attempt to stop a lion. It failed. The animal was running quartering away, at thirty to fifty yards, and received four shots in the body, all raking, and, of course, the penetration was not sufficient.

I think this totals thirty-eight head of game with seventy-three shots, with eight hit animals escaping. In the lot are some of the toughest to be found anywhere. But it must not be lost sight of that some of them took many shots to bring down, and that many were at extremely short range, while others—the greater numbers—were small bucks.

The results of the experiments revert to the same old condition in big-game shooting with all rifles—the ammunition. And it brings up the same points for argument—small bore or



FOUR THOUSAND POUNDS OF INFURIATION STOPPED WITH 87-GR. MISSILES—FOUR OF THEM.

large; and helps to arrive at the only sensible conclusions—that penetration is the first point to consider; trajectory, second, making hitting possible, and the size of the bore only being a matter to be considered along with one's ability to use the weapon effectively—the poor shot resorting to the largest possible bore.

The flatness of the trajectory and swift-flying missile renders the .250 one of the best guns possible for game up to the size of white-tail deer and black bear, when in competent hands, and, with proper ammunition, a good weapon for all American game, when in the hands of a hunter; but, too small, with any ammunition, when in the

hands of individuals who shoot only occasionally. These fellows should use a weapon that will tear a leg off at the hip, or disembowel an animal if the skin on the abdomen is touched. The .250 will not do it. It has its limitations and is a beauty and a killer in its limits. Don't expect it to rank with the Ross, the Springfield, the big Winchester or the Mausers. On the other hand, for accuracy, flatness of trajectory, slightness of recoil and lightness in weight, it has them all skinned a country block.

If you are a rifleman you need not hesitate to try the .250 on anything—it will do its part—when the proper ammunition is used.

### My Canoe and I.

Over a lake of glowing gold,  
Under a turquoise sky,  
Kissed by the rays of a dying sun,  
Just my canoe and I.

Rose-tinted snow peaks stand asleep,  
Bathed in a fading light,  
That gleams, and flickers, and gleams again,  
Then flees from approaching night.

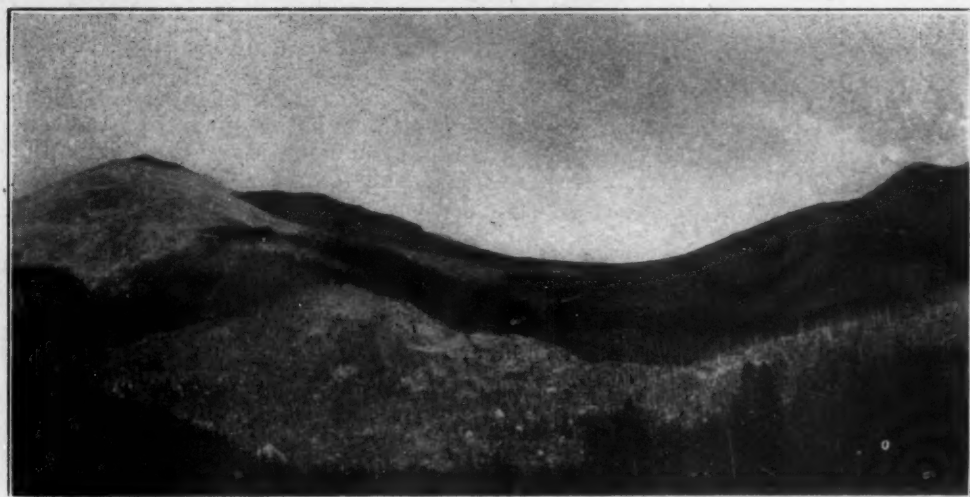
Cañons of dusk begin to grow,  
Mysterious shapes unfold,  
Grim and brooding the peaks become,  
With an aspect stern and cold.

Under the trees by the babbling shore  
The campfire shadows play,  
Till the pine knots change from the glowing  
coals  
To ashes soft and grey.

Close by a lake that is silver now  
'Neath a watchful, starlit sky,  
Content in our world of slumberland,  
Just my canoe and I.

NEVILLE COLFAX.





ARAPAHOE PEAKS (COLO.) FROM DEVIL'S THUMB PARK. GOOD MOUNTAIN AND CLOUD EFFECTS, BUT ARTISTIC VALUE OF PICTURE SPOILED BY LACK OF ANY DISTINCTIVE FOREGROUND.

## SOME HINTS FOR MOUNTAIN PHOTOGRAPHERS

EDWARD S. COWDRICK

Amateur photographers by the thousand each summer fare forth gaily into the mountains, there to fire off uncounted miles of film at the unoffending scenery. And each succeeding winter their friends inspect the summer's results—a few photographs of real artistic merit, many failures, and an infinite number that are neither good nor bad and whose only value is to show that the photographer has visited some well-known spot.

What is wrong? It isn't the fault of the scenery; that stands in eternal majesty, ready to furnish inspiration for a masterpiece every hour. Nor is it the fault of the camera; a few dollars nowadays will buy an outfit that is capable of turning out results that would arouse the envy of the most expert daguerreotypist of fifty years ago. No; the photographer must look within himself for the trouble.

If a few simple suggestions, based upon a rather extensive experience in the Rockies, may serve to help the amateur in locating the difficulty and improving the artistic quality of his output, thereby increasing his satisfaction in the delightful sport of outdoor camera work, the purpose of this article will have been accomplished.

First, then, make sure what you want to photograph. Don't try to include a whole mountain range—peaks, foothills, valleys and all—in one picture. There's plenty of time; leave something for the next film. Nine times out of ten the picture that will take first prize at the camera club competition next winter will be the one in which you show a small, nearby scene—a waterfall, a rock-locked cañon with a bit of sky at the top, or the wooded bend of a stream.

Remember this: the camera has no



CASCADE ON FRYING PAN RIVER, COLORADO.

Natural water effect secured by a series of instantaneous exposures, with lens stopped down to give sharpness and detail.

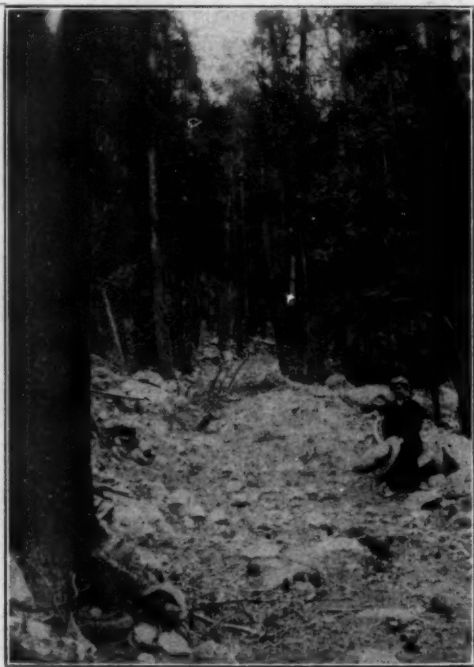
imagination. The human eye will focus itself on the snowy peak fifty miles away, blissfully ignoring the fencepost in the immediate foreground. But you can't put anything like that over on your camera; no, sir. That conscientious instrument will concentrate its attention upon that fencepost with mathematical exactness, and when your print is made the post will loom up big and black as the tower of Pisa, and if you want to find your snowy peak you will have to use a microscope.

Having thus noted your camera's predilection for foregrounds, it is well to humor the thing by providing it with foregrounds that will make, not mar, your picture. Probably the one fault that ruins more scenic photographs than any other is that of having no foreground at all or one that is worse than none. Study, then, your foreground with care, remembering that in the photograph it will be many times more prominent than it looks to you as you view the scene. Here is where the painter has an advantage over the

photographer. If he needs a tree in a certain spot in front of a mountain he simply paints it there, and lets it go at that. The photographer has to walk around the mountain until he finds the right kind of a tree in just the right position.

The whole secret of selecting your view is this: learn to see pictures, not simply scenery—and there is all the difference in the world. Adopt the viewpoint of your camera lens. Consider carefully what you have in your finder or on your ground glass plate before you make an exposure.

In photography as in everything else, results that are worth while are attained not by chance but by hard work. One really good picture is worth all the trouble it takes to get it. Unless you are working with a fast lens on moving objects, you will find it worth while to use a tripod. One picture carefully composed with a stationary camera, and given a little time with the lens stopped down for detail and



ABANDONED ROAD OVER ROLLINS PASS.

This road was cut thru the dense timber of the Western Slope, Colorado, by pioneer axmen.



FINE VIEW OF BEND IN STREAM, BUT THE PHOTOGRAPHER DIDN'T NOTICE THE BARBED WIRE FENCE IN THE FOREGROUND.

clearness, is worth several dozen of the general run of amateur "snap shots."

The photographer who is out for results must not consider time nor effort nor risk to life and limb. When your photographic instinct tells you there is an artistic picture to be secured by getting into just the proper location, get there! Don't stop on the wrong side of the stream and try something that may be almost as good. Right here is where the outdoor photographer can get enough thrills to satisfy the most exacting big-game hunter. The writer has waded swift mountain streams, scaled cliffs and crossed torrents on slippery logs to reach just the spot from which to take a picture. The friend who admires a charming view of a waterfall or rapid, in a forest setting which suggests nothing but placid calm and ease, little suspects that it was made while the photographer was perched precariously with one foot in the water and the other on a slippery rock, praying his gods meanwhile that the bit of driftwood on which the near hind leg of his tripod was standing

might hold steadily until the exposure was made.

Water scenes, by the way, are much easier to make successfully than their somewhat ill repute would suggest. Here's a trick: In photographing a falls or a swift rapid, set your camera on its tripod and stop down the lens. Then take a succession—six to ten or more, according to the light—of instantaneous exposures. By this method you will get detail in the surrounding rocks and trees, while the overlapped snapshots will give the water a foamy, frothy aspect which in naturalness often surpasses the best results obtainable with the most expensive lens and the fastest shutter on the market.

Finally, do not make an exposure until you are certain you have a picture, and that its composition is the best you can make it. Fewer negatives, and better ones, should be your motto. This may be a little hard on the film manufacturers, but it will add to the satisfaction with which you show your vacation pictures to your friends when you get back home.

# THE MOST UNIQUE FISHING CLUB IN THE WORLD

FRED BRADFORD ELLSWORTH

It is the famous Tuna Club of Santa Catalina Island, Cal., founded in 1898 by Dr. Frederick Holder, the noted naturalist and one of the most scientific salt-water anglers that was first responsible for encouraging the use of light tackle in sea fishing. Its object was the preservation of game fish and developing the sport to an art.

This club, known the world over because of the big game sea fish taken by its members with rod and reel, has several branches. Irrespective of the regulation tuna or tarpon rod, which calls for a butt and tip not shorter than 6 ft. 9 in. over all, tip not less than 5 ft. in length, and weighing not over 16 oz., and with which a line not heavier than No. 24 thread is used, there is the "light-tackle class" and the "three-six class." In the former the butt is not over 14 in., and with tip not shorter than 6 ft.; tip not less than 5 ft. in length and to weigh not over 6 oz. A 9-thread line is used. In the latter class the whole rod must not measure shorter than 6 ft. or weigh over 6 oz. The line is 6-thread, but lighter tackle can be used if desired.

Other salt-water clubs have emulated these specifications and today the clubs that really amount to anything offer costly and handsome prizes for game fish caught on such light tackle.

Fresh-water anglers of recent years have also become imbued with the spirit of fair play. As a result, this class of experts are resorting to the use of lightest possible equipment for trout, salmon, bass and muscallonge. They influence others of experience to do likewise. Those who adhere to unnecessarily heavy tackle are not classed as anglers at all, and looked upon with a feeling of commiseration.

For the further preservation of both salt and sweet-water game fish, and reducing angling to a basis requiring still further skill, Mr. James L. Jordan of Jamaica Bay, L. I., conceived the idea

in 1910 of using cotton thread for a line. It was certainly a most novel and ingenious plan. He had been an angler all his life, made beautiful rods of every description, and proficient on all kinds of tackle. He was expert in catching big-game sea fish on "light tackle" and smaller varieties on "three-six" equipment. Consequently, he was in a position to know just about what kind of equipment was necessary for that purpose. He started in to experiment and finally decided upon one of several split bamboo rods he made. This was a one-piece rod 6 ft. long, weighing 3 ozs. To this was attached a small reel holding 600 feet of Clark's O. N. T., No. 24 spool cotton thread, 4-lb. test. He successfully played and landed weakfish, striped bass, mackerel, herring and even fresh-water bass. He even went further and proved No. 100 spool cotton thread could also be used. Think of it, Mr. Angler! As a result, in the spring of 1911 an animated controversy took place in the sporting columns of the New York Press regarding use of cotton thread for fishing purposes. Mr. August Roth and Mr. Jordan championed the cause of cotton thread successfully, and in October, 1912, "The Cotton Thread Fishing Club of America" was formed with Mr. Jordan as president, Mr. Thomas Cleary, vice president, and Mr. H. S. Tibbs, treasurer. Its headquarters are, The Raunt, Jamaica Bay, L. I. The members are all expert anglers and make their own split bamboo rods, beautiful in workmanship; which makes them a rod anyone would be proud to possess. They weigh three and four ounces and are one-piece rods, six feet in length: salmon gut, single, three-foot leaders; 1-3 Pennel sproat snell single gut hooks, pinch-lead sinkers, reels and landing nets, make up the necessary equipment, with a supply of No. 24 cotton thread.

The angling is done still-fishing at

The Raunt, "chumming" and trolling slowly with motor boats. The average time it takes these experts to land a two-pound bluefish is six minutes; weakfish, eight minutes; striped bass, ten minutes; small-mouth, fresh-water black bass, three minutes.

The annual dinner of the club was held on November 14, 1915, at The Raunt. My wife and I left our hotel in New York that day to attend it, in a cold, drizzling rain. On arrival at Flatbush station, Brooklyn, we transferred to the Long Island Railway, and an hour later reached our destination. There it was raining hard, but what cared we, being "anglers"? We wouldn't have missed that auspicious occasion if compelled to wade up to our necks in water.

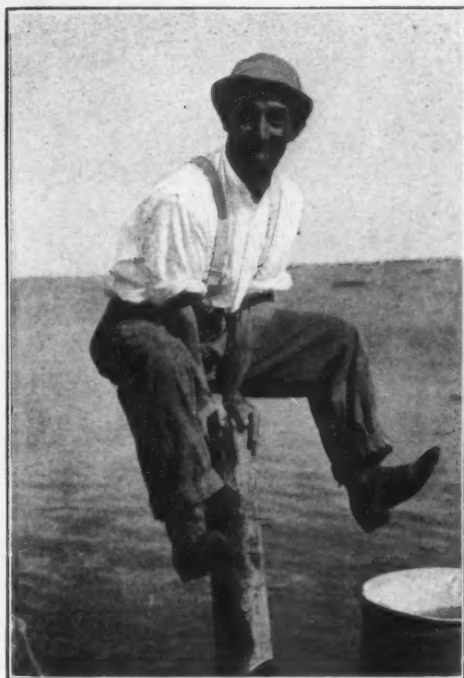
At 5 o'clock the members and invited guests sat down to the banquet. It has never been my pleasure to meet a finer lot of anglers and real, true sportsmen—men thru and thru, fellows one could bank on and never find wanting. At the head of the festive board sat the president of the club, Mr. Thomas Cleary, a most cordial and pleasing gentleman. To his right, as guests of honor, my wife and self.

There were delicious oysters on the half shell, fish, baked clams that were simply irresistible, lobster from Maine and fried chicken that would make a coon commit assault and battery to obtain. Then came apple pie, ice cream and cake, and finally coffee, cheese, crackers, and last, excellent cigars. I must not neglect to mention that there were cocktails to start with, and during the repast wine and more of it, also beer, but no one over indulged.

When the repast was over, the president arose and addressed those assembled in this manner:

Members of the Cotton Thread Fishing Club and Guests: To our guests we extend a most cordial welcome on this, the occasion of our fourth annual dinner, and as their presence indicates more than a passing interest in our affairs, we shall take this opportunity to make them better acquainted. I realize that a speaker who will not be thought infernal, must not be eternal, so I shall be brief. So far as we know, this is the only club of its kind in America, and its aims and principles are the promotion of the use of light tackle in fishing.

Heretofore the fresh-water fishermen have been noted as users of light tackle, but we



JAMES L. JORDAN (THE PELICAN).  
Founder of the Cotton Thread Fishing Club of America.

have gone them one better in adopting cotton thread No. 24, maximum strength, as our standard.

This club was formed after some tentative fishing with cotton thread by about a dozen men who were inspired by one who, in season and out of season, is an enthusiastic advocate of cotton-thread fishing, who is as tireless as he is patient in his endeavors to transform the novice into the more skillful fisherman, who stimulates the keen the friendly rivalry and competition among the members, and to this man—Jimmie Jordan—is due the credit for the success of this club.

Gentlemen, I ask you to drink a toast to Jimmie Jordan and the Cotton Thread Fishing Club of America.

When he had concluded there was a deafening applause, and Jimmie Jordan, in a few, well-chosen words, thanked the president and club. But the main speech of the evening was delivered by Mr. John Ryan, a splendid orator, on "The Evolution of Angling." I have heard many addresses at fishing club dinners, but none to compare with this one, and am quite sure that it will be greatly appreciated by all devotees of rod and reel. The speech follows:

Mr. President, Members of the Cotton Thread Fishing Club and our Friends: The art of angling, as the poet of the Cotton Thread Fishing Club, Harry Christian, says, is an ancient one, and it has a fish-like smell. Its antiquity antedates the flood. The

discovery of angling goes back beyond the dawn of history, far away into the mists of time. It is a legend in Babylonian mythology that Belus, the son of Nimrod, who invented all good and virtuous pleasures, discovered fishing. Seth, the son of Adam, taught it to his sons, and by them it was handed down to posterity.

During the flood the art of angling, together with mathematics, music and other



THOS. CLEARY,

President of the Cotton Thread Fishing Club of America.

precious arts, was saved from perishing thru the industry of Noah. But spearing fish is still more ancient than taking them with a hook and line. This method helped to sustain life during the stone ages.

It was Theocritus, the old Greek, about 600 B. C., who first records the use of a rod in fishing. Now, gentlemen and guests, this is an important fact for cotton threaders because without that discovery cotton-thread fishing might not have been possible. However, if this old Greek had not invented the rod, I feel confident in saying that the genius of the Cotton Thread Club, Captain Uren, would have invented one.

The first authentic record of angling appears in the Old Testament of the Bible, computed to be about 1,500 years before Christ, where the Lord asks Job: "Canst thou take out a fish with a hook?"; and from that time the progress and evolution of angling has been steady.

We find in Greek times Homer dignifies it in the "Iliad" and "Odyssey," stating that godlike men when pinched for a dinner fished with crooked hooks, and even dived for oysters. In those good old days a fish eater was considered a rich gourmand, and only those who were honestly rich could buy without suspicion.

It was Plato, the Greek philosopher, who said, "There is nothing in angling that is noble, or daring, or requiring skill"; but Plato, gentlemen and guests, never heard of the Cotton Tread Fishing Club. He never saw Louis Sprung hook a seven-pound bass while trolling with cotton thread, or steer his craft with one hand and fight his fish into submission with the other. Neither did Plato see Big Bill Behrens hook a three-pound striped bass with a cotton thread rig, a piece of bent tin and an expiring worm. Ah, Plato, you are a long time dead, and so is your philosophy!

Among the Romans, emperors, kings and princes angled for amusement. In Plutarch's

"Lives," Plutarch records the fishing trip of Anthony and Cleopatra on the Nile. Cleopatra had secretly arranged with some of her divers to hang a salted fish on Anthony's hook, and, as Anthony fervently drew it forth, Cleopatra soothingly said to him, "Go, Anthony, leave fishing to the princes of Pharos and Canopus; your game is cities, kingdoms and provinces." Even the walls of Pompeii are adorned with pictures of men angling.

As we march thru the centuries, we find angling always developing. It is interesting to note that the Anglo-Saxon race derives its name from the skill of the ancient Englishmen with the angle. Charlemagne, who dominated Western Europe in the eighth century, in order to keep his subjects content, advised them to take up the art of angling. "Because," said he, "I have never yet known an angler who was melancholy." And even on the Emerald Isle, Brian Boru, the ancestor of Captain McCollum and myself, angled for salmon in the lakes of Killarney. Shure, it was Brian himself who said, "The man who deceives a fish seldom betrays a friend."

Caxton, who printed the first book in English in 1486, had an essay on the art of angling; and as an index of the strides we have made in angling since then, there are now eight hundred books on fishing and kindred subjects.

The great English scientist, Sir Humphrey Davy, who has solved some of the problems of nature, said that angling was the most uncertain field of research he had ever entered.

But the greatest fisherman and philosopher of modern times is undoubtedly Sir Izaak Walton. In his "Compleat Angler" he indicates the progress of fishing, particularly along the lines of luring trout. He had a different colored fly for every month of the year. His books are a pleasure and a source of information to all who are interested in angling. It has been said that in them a child may wade and the tallest giant swim. "Angling," said Izaak, "is like mathematics,



THE RAUNT, JAMAICA BAY, L. I.,

Home of the Cotton Thread Fishing Club of America.

In that it can never be fully learned, at least not so fully but that there will always be room for experiment by some succeeding angler." And, gentlemen and guests, I think wise old Ike had the cotton-thread fishing

experiment in his prophetic mind when he wrote that.

And even in this country there have been and there are many devotees of the art of angling, embracing presidents, secretaries of state and others. Likewise, in our own club, hasn't President Tom Cleary, with whom we are proud to be associated, gone to Florida, and, thru the medium of cotton thread, angled out of the depths a savage bonefish?

Yet, there are some misguided fellows who despise anglers. They seem to associate them with worms. Nevertheless, there are now one hundred organized fishing clubs in this country, and very likely several hundred untabulated ones.

The kinds of tackle in these different periods have been amusing. In ancient times the fish lines were made of bull's hair, and, very likely, it was at this period that exaggerated fish stories began. Later on the lines were made from the hair of stallions' tails, and these in turn were replaced by flax, linen and silk; and as the demand for lighter tackle became more evident, it remained for a humble but true sportsman of Jamaica Bay and Florida to discover the delights of cotton-thread fishing.

Gentlemen and guests, as our president has indicated, we, as his disciples, are indebted to James L. Jordan, who discovered the art of cotton-thread angling. He is undoubtedly the pioneer in a movement or a mode of angling that is bound to spread countrywide.

In closing, I want to emphasize the fact that a cotton-thread angler is not a fish murderer. He comes like a chivalrous knight to wreak vengeance on the fish that would slay a half-drowned worm, a quivering shrimp or a poor, lonely clam! As Ben Franklin said to the codfish in whose belly he found smaller codfish, so the cotton-thread angler says to the game fish that churn these waters: "If you eat your kind, we will eat you."

Gentlemen and guests, it is my sincere hope that the tribe of cotton threaders may increase and multiply, and may the east wind ne'er blow when they go fishing.

Then prizes were awarded to the members who took the largest game fish during the year. As they were distributed, each recipient told and lived over again the story of how the big one did not escape. The enthusiasm was intense, and more than once I involuntarily made a cast as if I were holding a small rod and shooting out a cotton-thread line in the direction of an unsuspecting bass. That night when I went to bed I dreamed I was fishing with a magic wand, and using a spider's web for a line. When my fish was hooked, a huge spider crawled down the line and devoured it. The record of the members for 1915 follows:

Largest game fish on No. 24—tie: weakfish, 4 lbs, E. Petersen; bone fish, 4 lbs, T. Cleary. Largest game fish, trolling, No. 24, striped bass, 6 lbs. 15 ozs., L. Sprung; largest game fish, No. 100 thread, weakfish, 2 lbs. 9 ozs., A. D. Proudfit. Largest fish other than game



MR. JORDAN AND A MEMBER OF THE CLUB.

With four striped bass caught while trolling and saved out of a mess of thirty-three. Average weight, 4 lbs. Jordan on right.

fish, No. 24, skate, 10 lbs. 5 ozs. The club's salt-water record follows: Weakfish, 865; flue, 218; striped bass, 150; dog fish, 25; porgies, 242; eels, 30; bluefish, 1; blowfish, 2; skate, 5; herring, 1; bonefish, 1; blackfish, 1; snappers, 3,000.

In 1914 the record is given for comparison and was on 24 cotton thread: First prize, weakfish, 5 lbs. 15 ozs., James L. Jordan; second prize, striped bass, 5 lbs. 7 ozs., Louis Sprung; third prize, weakfish, 3 lbs. 15 ozs., Jacob Hoffman. Prize for largest fish taken on troll, striped bass, 5 lbs. 7 ozs, Louis Sprung. Prize for largest fish taken on No. 100 thread, weakfish, 3 lbs. 2 ozs., H. S. Tibbs. The club's salt-water record for 1914 on cotton thread, weakfish, 764; total number of weakfish taken on No. 100 cotton thread, 54; total number of game fish taken on cotton thread, 1,242; total number of fish taken on cotton thread, 1,690.

Eighty-seven game fish were caught



MR. JORDAN AND STRIPED BASS WEIGHING  
5½, 4¾ AND 3¾ LBS. EACH.

in 1913 and the prize winners were Mr. Jordan with a 5-lb. 15 oz. weakfish; Mr. Uren one weighing 4 lbs. 8 ozs., and Mr. Hedeman's, 3 lbs. 12 ozs. In 1912 the record was 47 game fish.

Some of the epigrams of the club members are:

"If she doesn't go this time, Bill, we'll put in a new one."

"I'd sooner work in the office than fish."

"Anybody says I didn't get on thread can—"

"You never have any fun with a fish when it is lying in the boat."

"I'll show you where to get weakfish; never mind what Jimmie says."

"She trolls fine, with a rowboat lashed to her."

"I wouldn't go again to Florida in the summer time if they gave me the whole state."

"Don't that beat hell! And he was a big one, too."

"Aw! leave it to me."

"Put the church in the middle of the

parish and we will all go to it."

"I think I'm a winner."

"How can you beat this bay."

"Let's play pinochle."

"Our chum pot is all right."

"I'll be your floatman, Jimmie."

"All we need is a nail and hammer and she'll run."

"You can't fish our bass bank today. It's too rough."

"What's this? More beastly muck."

"Shoot the money."

"Dinner! You boys wash up, hear me?"—Mrs. Jordan.

Credit must be given to Mrs. Jordan, Jimmie's wife, for the kindly interest and enthusiasm she evinces in the club. She is a wholesome, kindly woman, just bubbling over with good humor and laughter that is contagious. The club members she refers to as "my boys," and they all call her "Mama."

Upon payment of an initiation fee of \$3 and annual dues of \$1 per year, any person may become a member of this organization, provided the applicant presents a verified statement that he has caught and landed with a fishhook attached to a line of cotton thread not stronger in number than 24, a game fish. So I say to you anglers who are real sportsmen, if you want to indulge in a game that will tax your skill to the utmost and convince yourselves that the science you have already acquired is small, try "cotton thread." Then, perchance, you will want to join this wonderful club and you will be welcome, I am sure.

I have fished for weeks at a time with Mr. Jordan, off the Florida keys, and know him thoroly. He is one of the finest men I have ever met in all my years of fishing and hunting. It would be difficult to find a more enthusiastic angler or companionable man—on the square in every way, loyal and true blue. He is a wit and humorist, an optimist in every sense of the word, and his phlegmatic temperament, combined with his sunny disposition, are characteristics to be envied. The Cotton Thread Fishing Club of America feels proud of Jimmie Jordan, and it will be a monument to his memory, long after he has passed away.



# MOUNTAIN FISHES

THEODORE G. LANGGUTH

There is much in the old saying that what we have is not always fully appreciated; it is something at a distance, something that we do not possess, or is beyond our reach, which is much better than what we have; and sometimes this seems not far amiss in its application to the wants of sportsmen. I can well remember some years ago, when certain anglers in the West were anxious and determined to have the gamey black bass in some of the natural and bountiful trout waters there, failing to appreciate the good qualities of the trout as well as its more natural adaptability to those waters, where the introduction of bass would have been at best a hazardous chance. True it is, there are many suitable and productive black-bass waters in the West, and I recall a most pleasant and successful bass-fishing expedition some years ago, on a beautiful little lake in Western Washington, from which snow-capped Mt. St. Helens and Mt. Rainier both were visible.

On the question of different species of trout, we know that Eastern sportsmen adore the Western rainbow and some have the impression that no game fish of equal size can compare with a Western mountain trout, whether it be a rainbow or a cut-throat; while in the West many anglers praise and desire the Eastern brook trout, which in suitable waters there, attains such fine development. To be sure, the Eastern brook trout in a mountain stream is a very different fish than it would be in some Eastern waters; but after all is said, in the final analysis it is environment that turns the trick for or against the development of a fine type among trout. Some years ago the German or brown trout was introduced into Eastern waters; it was then much desired and sought after, but was later declared to be detrimental and undesirable in waters suited to the Eastern brook trout. As with articles of foreign manufacture, so in a similar way it has been with trout; if imported, even

as between East and West, that was conclusive evidence of superiority over the home product.

In the Northwest from Montana to Alaska is found the Dolly Varden trout ("Salvelinus parkei"), also known as "Malma" and bull trout, a native of that region. The books tell us he is a charr and a first cousin of the Eastern brook trout. This being so, his pedigree is good and so is his flesh, and in the streams he is attractive and gamey. Any visiting angler from the East would be mighty well pleased with a catch of these trout from a Western mountain stream; perhaps because he is a native of the West, he is less aristocratic than the Eastern relative; he will rise to the artificial fly, will take a spinner or almost any kind of live bait that is offered. This trout is accused of attaining exorbitant size, of being a cannibal, hence very destructive to other trout. For these reasons there has been considerable opposition to the Dolly Varden in some parts of the West. It goes without saying that all trout are cannibals, more or less, according to circumstances, the larger feeding upon the smaller, and where different species are associated in inland waters, the weaker species gradually giving way before the stronger, and in the long run a weaker species may be almost entirely displaced by a more pugnacious or puissant species. This evolutionary process has been in progress in many waters, and in some has already been consummated.

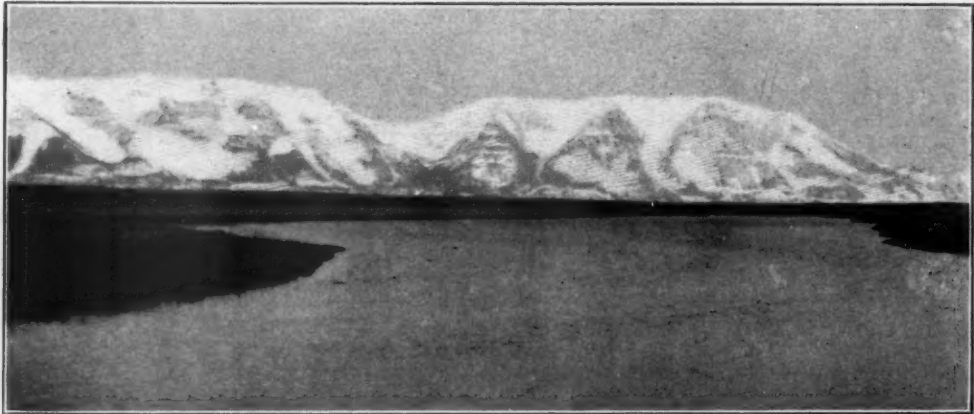
Coming into close relation with this problem of puissance among trout species is the question of abundance or scarcity of predatory enemies (other than man) of trout in any specified water; a subject of peculiar scope and perplexities, toward the solution of which little is known and less has been accomplished. But that is another story.

In some Western waters the Dolly Varden trout is very prolific and plen-

tiful. This is simply because it has found a combination of favorable conditions; it reaches a large size. I have seen them up to ten pounds in the Pacific estuaries of Washington, tho that size is unusual in inland waters. But the steelhead and rainbow trout, as well as Eastern brook trout will attain large size under favorable conditions; for instance, in tranquil waters with abundant food, the Dolly Varden lives up to his reputation as a "charr." The charrs are all scrappers of top notch among themselves and among all other fishes, as is also the rainbow and steelhead trout.

There are streams in the West, as in the East, in which the Eastern brook

Over much the same range accredited to the Dolly Varden trout is found—the Rocky Mountain whitefish, or "mountain herring" ("Corregonus Williamsoni"). It is of the same genus as the common whitefish of the Great Lakes, but differs from it in appearance and in some habits. The color of the Rocky Mountain whitefish is bluish, the sides silvery, under parts white, tho I have seen them of almost bronze or olive color instead of the usual herring blue. While often found in the streams, it is essentially a fish of deep lakes running into the streams to spawn, when they fairly swarm on the riffles in some places. Many are taken with hook and line and sold in the markets



A TROUT AND GRAYLING WATER IN MONTANA. PHOTOGRAPHED JUNE 1ST.

trout holds sway, and again, in other and larger waters the rainbow is in rapid ascendancy, bidding fair to outstrip all others and take possession. Thus between trout, as with all other animals and plants, the natural struggle for supremacy goes on.

I once found in a three-pound rainbow a partly digested trout that was nine inches long, and have often examined little rainbows and Eastern brook trout four to six inches in length that were fairly gorged with the spawn of their ancestors. So far as game qualities are concerned, in a rapid stream in the mountains where perhaps three species of trout are found, there is little to choose between them.

of Montana and Idaho during the winter; but they will also take the artificial fly, and trout anglers are often glad to find the whitefish rising when trout can not be had. It is an excellent food fish, and in the cold mountain streams is active and gamey. For some reason it has escaped the attention which it seems to deserve as a possible valuable commercial product in the larger lakes of the inland mountain region of the West.

This fish and the Dolly Varden trout have both reproduced abundantly in some waters, have brought good value on the market as food fishes, and each in its way is an interesting game fish. There is no pan fish more tasty than

one of these small Western whitefish taken from the cold mountain waters, and as for beauty and action when hooked, the dwarfed Dolly Varden (or Western charr), found in the remote high mountain regions, is the equal of any trout.

The Rocky Mountain whitefish is known as grayling in some localities, but this is a misnomer. The true grayling is a very different fish; its unusual long and high dorsal fin, decorated with spots of bluish-green, distinguishes it from all other fishes without further question.

In the upper tributaries of the Missouri in Montana both whitefish and grayling are found. In that region it is a somewhat common belief that the grayling is the result of a cross—a hybrid between trout and whitefish. This supposition is, of course, a myth. The books tell us that the grayling is a distinct genus represented by three species in America—one species in the Arctic region, a remnant in Michigan and the Montana grayling.

The unfortunate grayling has suffered much thru the heedlessness of the white man to protect and preserve it. In Michigan we are told it was the lumbering operations; in Montana it has been insurmountable dams and irrigating ditches and shameful ravages upon the one-time countless thousands as they ascended the shallow streams at spawning time. The grayling is of finest edible quality and is one of the most beautiful of our freshwater fishes. Its game qualities vary according to different waters in which it is found. Those of medium size in the streams are more shapely and active than the larger ones in the lakes.

The late William C. Harris wrote some years ago of his experience with the grayling. The venerable angler anticipated much and had traveled far to try his skill with this far-famed "flower of the waters," and it was perhaps, as it seemed, with a touch of regret or sympathy that he voiced his disappointment of its actions as a game fish, which had not come up to his expectations.



### Roughing It.

What do we care if the wind is high,  
And the sun hides out, and there's rain in  
the sky;  
When we're loosed from the world with  
never a sigh—  
Roughing it.

What do we care for the tangled ways,  
The boulders big, and the rugged caves;  
Here are the joys of happy days—  
Roughing it.

What do we care for the social cry,  
The coming feats of the by and by;  
How small they look when you're up so  
high—  
Roughing it.

What do we care for frills and hems,  
Or evening frocks, or handsome men;  
When here in the woods with a twittering  
wren—  
Roughing it.

What do we care for the things that are  
lost,  
The smiles, the tears and the bitter cost;  
Everything now to the wind is tossed—  
Roughing it.

What do we care if the dinner is cold,  
Because we tarried in mountains old;  
What do we care should the landlady  
scold—  
Roughing it.

GEORGIA HICKS.



# CAMPFIRE TALKS

By CHAUNCEY THOMAS

## No. 50.—The Wind.

(The Campfire's Semi-Centennial.)



Chauncey Thomas.

The mightiest thing I know of is the wind. My reason tells me that the earth is greater than the wind—a mere whirlpool of gas on its surface—and that the sun is far mightier than ten thousand earths, and even that the sun itself is but a spark amid the stars, yes, compared to even one of many single stars that my unaided eye can see—all these things my reason tells me, but I cannot realize it all, and we know only what we feel. What we learn from books, or from other men, which is exactly the same thing, we ourselves do not know; we only know what other men think or know; but to know something ourselves it must come to us thru one of our own senses. We must see it to know it, must feel, hear, taste or weigh it. So that gigantic spark we call the sun is to me but a hot hole in the sky, as large perhaps as my hat. But the wind I can feel and see, can taste, smell and listen to it surging over the hills in great aerial billows, or sweeping over the plains like a huge river a hundred miles wide, its current split and troubled here and there by the island mountains. The trees waving and straining are but sea grass on the bottom, and I a mere insect with others of my kind, crawling where I may in this mighty ocean of swirling on-rushing air.

The tip of Pike's Peak, the utmost top of the most famous mountain in the world, I carry in my pocketbook. That is something no man can ever reproduce, can ever duplicate, can ever equal, for there was but one tip to that high summit, and I have carried it now for many a year. And when I stood on that peak and looked far away, over the plains misty with dust till they merged into the sky without a line, then down onto the tops of bare snow crested rocks, themselves far above timber line, and on past them,

ever downward into the dark cañons, mere shadowed cracks in the earth's crumpled surface, I could not realize what I saw. The world grew small, the view had not grown larger. Others tell me that the Grand Cañon of the Colorado looks the same, something unreal, a trick of the eye. Only once did I have the same awed feeling as when I stood on the tip of Pike's Peak, and that was in the National Library at Washington. From that circle of bronze figures looked down on me the concentrated wisdom of all the ages, standing there silent and serene, amid the world of books. Neither the Colorado Rockies at one glance, nor the literature of the world could I realize—it was something vague, ungraspable. But I can make a picture of the wind, not a perfect one, but still a mental picture, and it is a vast reality, a living thing, so it seems to me.

Personally, I hate wind. It is irritating, is ever forcing itself on one's attention till it becomes as unbearable as a woman who does the same thing, then a man seeks quietness and stillness at any cost, and he turns from the open of the sea or the plain to the shelter of the mountains. Here the air comes with a plunge, but around yonder shoulder of granite all is calm, and the smoke from the campfire rises in a slow spiral. There is no wind, but down in the gorges below something howls and raves like a swarm of tortured ghosts. It is the wind. Somehow I feel that it is alive, prowling in and out of the ravines and over the crests like a pack of wild animals, a great herd covering miles in extent away to the horizon, always crowding in one direction, breaking into cross currents when some obstacle is reached, then flowing together again, ever onward, seething and rolling over the surface of the earth like some great breathing blanket; then suddenly it stops and all is still. None of them move.

Something about it recalls the old buffalo herds, only I know that those millions of wild cattle were but mere bugs, more related to the locusts than to thundering tons of air that go sweeping by on right and left

to the skyline and over one's head to far above the cloud limits. I can think of a wind a mile deep; I have often seen it as I smoked at my ease, my back to a warm rock, far above where the trees grow. One had only to look down and see it. But that, my reason tells me, was a narrow wind, merely a flat blade slipped between the earth and the upper air. Is there a wind fifty miles deep—two hundred miles? My reason says "Yes," but I do not know, for that my senses can never tell me. I can see the cloud shadows racing over the plains, swifter than the swallow, and all is still here, so there must be a terrific current flowing up above, one mile, two miles, five miles high, but it is all still down here, nor are the tree tips on the tops of the foothills in motion. They too are still, but these cloud shadows slip up the hills and down the other side like a pack of running wolves, so evenly and silently they go. Often when a boy I used to try to keep my straining horse within one of those shadows, but it was no use. How fast they went I do not know, faster than any train I have ever seen. These shadows are probably the fastest running things the eye of man has ever seen, for beside them the train is but a laboring worm, and the shadows sweep up from behind, pass over and beyond a flock of wild ducks whistling toward the North just as the same shadows a mile back passed over a covey of young grouse hiding in the willow thickets. And the ducks were going probably ninety to one hundred miles an hour.

The sailor does not know the wind as does a mountaineer. Things look greater seen from below than from above, and to know a thing we must look down on to it; then only can we realize it.

The sailor lives in the grinding friction between two oceans, one of water below, the other of air above. And the greater of these is the ocean of air. But the mountain man knows the wind as the fish knows the sea; he sees it from below and from above and from all sides. He can sit and watch the dusty flood miles away, when to the sailor this tossing wonder would be below his horizon. The sailor knows the wind in detail as does no other man; on that knowledge depends his livelihood and even his life itself, but the mountaineer knows the wind in its great sweeps, knows it wholesale, as a thing that does not concern him personally, but only as one of Nature's moods, one with the rising of the stars, or the coming of the snow.

The hill dweller looks on the wind as the sailor regards the forest, merely an indirect means to a vital end, but nothing of interest to him in itself. The wind makes the plant life possible whereby all men and

other animals live, and the trees made the ships possible, until man floated iron. The sailor, as the world knew him ever since man first grasped a floating log, has almost disappeared from the seas. Steam has done it, and the wind can blow willynilly over the waves for all the shovel man in the hold of the leviathan knows or cares. But to the salt of old the wind was an engine, for the rigging of a ship is only a windmill. Gas pressure moves all ships, be it pressure of air on the sails or pressure of steam on the piston head, it matters not. Both air and steam are gases, and in both cases it is only gas pressure that drives the bow into the rollers.

And a wind mill, such as has pumped water from the ground for ages, is only a mechanical tree. In both the farmer's windmill and the tree does the air current lift water. Otherwise the tree could not drink and breathe and live. Every time a twig or a trunk bends, water in the form of sap is squeezed a bit higher, then the wood sways back, and the water is again squeezed up another cell or two. The boy on the pump handle is doing exactly the same thing as the wind in the branches of the tree over his head, only neither the wind nor the boy knows it. We know little of what we do, and of most of the things we do we never guess.

There are as many points of view as there are eyes to see. Even the two eyes in one's own head do not see anything just alike. A moment ago I said that the wind was the sailorman's engine. Now let us take another viewpoint, exactly the opposite, perhaps, yet nevertheless just as true, like looking at anything first from the north, then from the south, or from the outside in, then from the inside out.

Let us for the moment consider the sun as a firebox, the wind as the steam, and water as the engine. In an ordinary steam engine, be it locomotive or stationary matters not, the power starts from the firebox goes through the boiler, then via the steam into the piston, then into all the wheels that move, no matter what their number. The power starts in the sun in just the same way; it reaches the ocean, the boiler, then is carried in the wind far inland, and the water is dropped, and here the water does the work. The water in this case resembles the wheels of the engine and of the other machines in the factories of men. Here the water is the engine, and the wind is only the steam, or even the steam pipe, if you please.

Even the mightiest thing man can mentally grasp has its commonplace point of view, as has every other thing that man has known or invented or even imagined or dreamed about. Some people say, and not without

reason, that Heaven with its perpetual music would be worse than a madhouse, and that no one but deaf people would be happy there. On the other hand, the entrails of a toad, to the eye that sees and thinks, contain beauties not to be found in a rose. An extravagant statement, you say? Not at all. In the organism of the toad we have a far more evolved development than in any vegetable, and to the scientist this is akin to what a musician finds in a symphony compared to a hornpipe. Most people, of course, prefer the rose and the hornpipe. So we may look at the rose, the inside of a toad, or the wind as we please. There is none to say us nay. Because we see all sides, or at least more than one side, is no reason why we do not appreciate the rose even more, perhaps, than those who are more sure because they see less.

I have felt the feeling of awe but twice in my life; that was, as I said, once on the summit of Pike's Peak and the other time in the National Library. Neither lasted over its burning instant, for there flashed on me that Pike's Peak was only a wart on a mite of iron dust blowing thru space, and as for the library, the second thought showed that it was a greater step from the sunlit mud of the sea to protoplasm than from that living slime to Buddha and Shakespeare.

And the mightiest tempest that blows is simply like the air coming thru my keyhole; the only difference is quantity. The ocean and a tear are just alike, and each has its calms and depths and storms. The ocean has made many tears, but all the tears since man began would not make an ocean, yet the ocean is made of tears. The paradox of Fate has caused some men to smile or to go to sleep when others wept or prayed, for nothing exists in itself; everything is but a relation between two or more other things, that in themselves are again merely relations between other relations, and the reasoning vanishes in the paradox that ends every line of human thought and human faith. The wind tumbling the forest tops is but gas in motion, or it is the breath of a Grecian God, as you like. In reality it is neither, and is like nothing known to, or dreamed of, by man.

And what does a shell do that drops from Heaven into the trench and scatters half a hundred human limbs over the adjacent acres? The shell merely lets loose a wind, a hot killing wind, yet nevertheless a wind. That it is a death wind matters not, does not change its nature in the least. The annihilating blast from the shell and the zephyr amid the flowers are exactly the same thing. Put a million zephyrs into a twelve-inch projectile and you have the shell, or the flame from the cannon's throat behind it.

And what do fishes breathe but air? And does not that air blow here and there thru the water, just as it does above the water? From a lake or from a river lift all the water and leave the air as it was, and let the air continue to move therein just as if the water were there. Have you not tiny winds between the pebbles, a rushing hurricane among the boulders? It is all merely a matter of size, of quantity, not quality, this feeling of awe. No better definition was ever framed than this—"Awe is the effect of novelty on ignorance." I wish it were mine, that keen, sane remark. I would rather father that saying, with the clarity of vision behind it, than I would twins. Yet the whole thing can be summed up in one word—"Fear." There is no awe without fear.

That is why the tempest thrills any man, till he thinks that after all it is but a small gaseous affair on a very small ball, so what's the use? He can watch and enjoy it if he pleases, or go to sleep and forget it if he wishes. There is nothing awful about it; it is just a draft multiplied by a million. Yet when with a breath I blew the dust from this machine before I began to write I blew a million worlds through a thousand light-years of Space.

Whether a thing is big or little depends, not on the thing itself, but on the measuring stick. And as Poe so well says, no man ever realized the length of one mile. The only measuring stick we can realize, can really know, is one that we can see and touch at the same time, touch it and see it thruout its whole length without moving. Otherwise, if we must move eyeball or hand we then divide it, and add a reality to a memory and that is a conclusion, not a conception. So if man can not actually realize something much larger than his two hands, or his own body at the most, then how can he grasp in its entirety the air billows a hundred miles wide and five miles high that break over the crests of the Rockies and dash their air spray out over the air lakes in the hollows of the plains?

So it blows today, this West wind. Clear and sweet and cool from the snows it comes, and tho I can think of many sides of it, yet in it is something that man does not know, and will never know. Call it the living breath of the Universe, or anything you will, the "wings of the morning" or any phrase you wish; in this mighty current that I can neither help nor hinder is something no man may name. It is doing the work of the world, and that is the greatest thing we know, or ever can know. It has brought to me the Spirit of the Summit, and is carrying it to others out over the deserts of mankind.



Mr. Smith, our angling editor, writes for *Outdoor Life* exclusively. He will gladly answer any questions possible on the subject, and is at all times glad and willing to lend his aid to the cause of the truest and highest ideals in angling sportsmanship, to which cause this department is devoted.

### Anglers' Fireside.

Letter No. 213.—More Regarding Those Pennsylvania Bass.

Editor Angling Department:—In answer to H. H. M. (see Letter No. 204, *May Outdoor Life*), would say that I have tried the Heddon yellow perch, but with no success. The baits I have had the best success with are ones that resemble in coloration the small fishes of our streams. We have no yellow perch except in the Susquehanna River and old log ponds adjacent to it.

Four years ago the acids from the chemical works, tanneries, etc., were run into the river at the headwaters, killing fish by the million. At Williamsport the river is about one thousand feet wide. At Muncy, a small town twelve miles east of Williamsport, the river is quite a little wider. A witness from Muncy stated before the West Branch Anglers' Association that if the fish would have held him up he could have walked across the river, stepping from fish to fish. All varieties of fish: minnows, bass, suckers, carp, perch, pike-perch, pickerel, etc. A friend of mine said he took a boat and gathered a boat load of pike-perch, the smallest of which weighed about eleven pounds. For three days, as far as you could see up and down the river, it was thickly dotted with the white bellies of dead fish

floating along. "Have we a Fish Commission?" Yes, at least I think we have. But we have corporations with unlimited capital and political influence, and you can guess the answer. There has been some attempt to remedy the conditions, but without much success. Consequently one of the most beautiful rivers in the East is a poor place to fish.

The fishermen have naturally turned to the smaller streams—streams that in some states would be called rivers. They are from thirty to forty miles long, two or three hundred feet wide in places near the mouths, flowing thru a mountainous country, fed by springs and smaller mountain streams. There are long, shallow rapids and deep pools. The bottom is rock or gravel, and at some places, near the lower end of the pools, sand. There are no lily pads, flags or other aquatic or semiaquatic vegetation, not even moss on the stones, except in a very few places. Except in times of a freshet the water is as clear as a crystal. I think the ice going out in the spring keeps the streams free from vegetation.

The popular mode of fishing these streams is for the fisherman to wade out as far as he can (using a bait rod about

nine and a half feet long), baiting his hook with a minnow, helgramite, stone catfish (a small species of catfish), angleworm or some other live bait, casting as far as he can, moving very slowly down stream with the bait, working as far ahead of him as possible. When the bass takes a hold of the bait he starts to run with it; feed him line as fast as he moves so he will not feel the weight of the line; he will run a certain distance, stop, turn the bait, swallow it and start on. Then is the time to strike and strike hard. If he is a large fish the fisherman wades ashore and lands him.

Now, the bait-caster has a hard proposition; he has to thoroly know the stream, little pockets in the riffles, eddies back of large boulders in the pools where the rock shelves off into deep water, where there are submerged logs and stumps, where the bass like to lie. He must know these places beforehand, as the water is so clear that the fish will see him if he gets too close. He must have the ability to cast accurately and at a long distance. Most of my bass were caught on casts of over 100 feet; my largest bass last season (5 lbs.) was caught on a cast which took nearly all of a new fifty-yard line. Of course, there are places where you can make very short casts.

With regard to baits, I prefer the surface underwater; the strictly underwater baits, while you can procure them in the sizes best suited for the stream, are very hard to handle on account of its rocky nature. I have tried the bright-colored baits (rainbow, spotted and red and white), but with no success, excepting for night fishing. I have had the best success with the fancy green back and frog colored. Last season I tried the Heddon Crab Wiggler and had very good success with it. I have seen one of the Heddon people's latest creation—the Baby Crab Wiggler—which I think will solve the problem as far as these streams are concerned.

I do not believe much in the theory that bass strike at baits in anger. I have kept small bass in a large tank aquarium to study their habits and method of feeding. A bass would make a rush, grab a minnow, swim around the tank a few times, then open its mouth with a quick, convulsive movement, the minnow would spin around and dive head first down the bass' throat. I can't figure out just how it is done, after the minnow is turned and partly down the throat (there is no visible contraction of the throat as in swallowing), but the minnow gradually works down into the stomach. Before the tail has disappeared from view he generally has another one in his mouth ready to take its place. I have had a bass take five minnows one after another in this manner before satisfied. Their digestion must be extremely rapid. I have

caught bass with live bait when the tail of a minnow was still visible in their mouths, and they had killed and attempted to swallow my bait. So I think that if a fisherman catches a fish with another fish in his throat he should not jump at the conclusion that the fish struck in anger, but rather was trying to get a square meal in the shortest possible time.

In the streams and bodies of water that I have fished and am acquainted with in New York state the yellow perch are very plentiful, large schools of them being found most anywhere; therefore, I see no reason why the yellow perch bait would not be the best.  
—J. A. H., Williamsport, Pa.

It would seem that the anglers of your section would see the necessity of getting together and "doing something." We have all stood by and watched the destruction of game and fish; now the time is ripe for concerted action. If we work together, even the "vested interests" will sit up and take notice. I agree with you regarding the value of surface-underwater lures for rough or snaggy bottoms. However, I do not know that I agree with you that bass strike only when hungry. I have found it possible again and again to make them strike by teasing. Elsewhere I have told the story. We would like to hear from the bass fans regarding this matter. This discussion began in the December, 1915, issue, Letter No. 162.—O. W. S.

#### Letter No. 214—A Refreshing Breath From Snoqualmie Falls.

Editor Angling Department:—I join the circle just to say that I am a user of a split bamboo fly rod which I have used for two



A 22-in. trout taken below Snoqualmie Falls. Compts. J. B.



years and I am not going to lay it aside the coming season. I like the split bamboo. In 1914 I caught over fifteen hundred trout, which may seem a large number to you, but when you take into consideration our long open season—eight months—with a limit of fifty trout for the day, my good record does not seem so bad; twenty-five was my average catch. Would Mr. Smith give us the name of his favorite fly rod?—J. B., Snoqualmie, Wash.

No, your daily catch is not excessive, tho it does mount up at the end of the season. I have so many "favorite rods" that I do not dare enumerate them. Of course I have one rod which is, to me, the best of the bunch, but to give its name here would be to expose my devoted head to the attacks of fellows who do not agree with me. No, I dare not do it.—O. W. S.

#### Letter No. 215—A Big Colorado Rainbow.

Editor Angling Department:—Having read some articles in your magazine in regard to trout-fishing in Colorado, I wish to say that in all my fishing trips over the country I have never had as good fishing as a party of us enjoyed the latter part of May, 1915, at Hartsell, Colo. I thought perhaps you would be interested in a photographs of one fish I caught on the trip. This



You'd smile, too. Compts. R. R. B.,  
Colo. Springs, Colo.

fish was a Rainbow trout, 22 in. long, and weighed 10 lbs. 2 ozs.; was caught with a Montague rod and Faline line on a No. 4 Sneek hook. I presented the fish to the Powell-McIntyre Sportings Goods Co. of this city, where it can be seen at any time, as they had it mounted for display. I claim this to be the largest trout caught in a running stream in Colorado in 1915.—R. R. B., Colorado Springs, Colo.

Some fish, truly. You are to be congratulated on your success. To land a fish after

half an hour's battle is joy indeed, but to lose the fish just at the lip of the landing net as was my portion recently, is ———  
—O. W. S.

#### Letter No. 216—Salmon and Artificial Lures.

Editor Angling Department:—"J. W. F.," Needles, Cal., asks what kind of artificial lures to use for salmon. In the San Joaquin River, when the fish are making their way upstream to spawn, many are taken on spoons of the Willson Spinner pattern, sizes 4 or 5, or even 6. Spoons seem to be the only thing they will strike at. The most successful spinners have white outer surfaces and red or copper on the inside; some have red beads for the spoon to play against. The angler must work the spoon twelve inches or thereabouts from the bottom. I caught five salmon in three days in this manner; the smallest measured 15 in., while the others weighed 9, 10 and 12 lbs.; two weighed 10 lbs. The largest fish caught near here in 1915, so far as I know, weighed 27¾ lbs. Old fishermen say there were more small salmon in the river last year than for many years.—J. E. L., Fresno, Cal.

We thank you for the information and pass it on. By the way, I have come to regard that glass bead on a trolling spoon with considerable suspicion. I had much rather have a small metal disk. Undoubtedly the bead is something of an aid in even spinning, but when it breaks, as it is bound to do under rough fishing, the spoon is apt to "wobble."—O. W. S.

#### Letter No. 217—More Stinging-Insect Information.

Editor Angling Department:—Your query regarding the finding of "stinging insects stored safely away in a trout's stomach" prompts a few notes on the subject which have come under my personal observation. While my experience with trout has been largely confined to Colorado and extending over but four or five years, I have frequently found both hornets and bumble bees in the stomach of three local species—rainbow, brook and native. It has been my custom to make a careful examination of the contents of the stomachs, with a view of learning something of the food habits of trout, as well as to determine what insects were being taken at the time. While there has been no record kept of such instances as the finding of bumble bees and hornets. I believe twelve or fifteen is a conservative estimate of the number. I am unable to state if these insects were taken alive or when floating on the surface. On several occasions I have removed them from the stomach and attached them to a small fly, but in no instance have I succeeded in get-



“. . . Every true angler examines the contents of the stomachs of the fishes he captures.”

ting a rise, tho I both played and floated them on the surface. Neither have I been very successful with artificial bumble bees, the use of which was prompted by the above observations.—J. D. F., Denver, Colo.

Every true angler examines the contents of the stomachs of the fishes he captures: it is the only way certain knowledge can be obtained. The question of paramount interest with every fly fisherman is, "What fly are they taking?" The only way to quickly and certainly answer the question is to secure "inside information." Every fisherman would do well to follow your example. Re that "stinging-insect" problem: the mere fact that we can take trout on artificial bees proves nothing, for there are days when trout will take almost any sort of artificial insect. I had considerable sport one day with an artificial bee, dressed on a No. 10 hook; later I substituted a common fly and took fish with greater success. The fact that you could not get the fish to take the dead insects is puzzling, because, on your findings, they took them in the first place. I hope the matter will be thoroly threshed out.—O. W. S.

**Letter No. 218—Fly-tying Materials and Books Wanted.**

Editor Angling Department:—Last summer I read an article on fly-tying by Robert S. Lemmon, which appeared in one of the outdoor magazines. The article interested me so much that I tried my hand at tying flies. Now my greatest trouble is in securing materials,—feathers, etc. Have been to all the sporting goods houses in New York city, but failed to find what I need. Can you tell me where I can get materials? All fly fishermen I think should be able to dress flies; there are so many days when trout or bass are rising to some

particular fly, the like of which the fly-book does not contain. Do you know of any books on fly-tying costing less than \$3? Am enclosing a fly for bass, "Queen of the Waters," which I dressed. The hook is the size I use; in fact, all the fly fishermen use practically the same size on the lake here. It may seem large to you, but it is the proper size for our fishing.—F. G. M., Mt. Risco, N. Y.

I am surprised that you were unable to secure fly-tying materials in New York, as I have always been able to get whatever I need there. Suppose you try Wm. Mills & Son, 21 Park Place; they list materials in their catalog. Write W. J. Jamison & Co., 736 South California Avenue, Chicago, Ill., for feathers. I am sure that you can get what you need of them. My best works upon fly-tying are from England. McClelland's "How to Tie Flies for Trout and Grayling" is a little English book well worth while. Probably you could get it thru some American importer, or direct from the Fishing Gazette, London. Shipley has a little work, "Artificial Flies and How to Tie Them," price, \$1. "Guns, Ammunition and Tackle," a volume of the "Sportsman's Library," has a chapter on fly-tying; as also has "Salmon and Trout," another volume from the same set. The chapter in the latter volume is by Mr. Wm. C. Harris and is well worth owning. Both sell at \$2, I believe. These last three books can be secured from Outdoor Life. I am sorry that my "Amateur Fly-tyer's Workbench" is not get-at-able, for I am sure you would find it helpful. Run as a serial in Outer's Book some years ago. I examined your fly with much interest; it shows that painstaking care which is the secret of good fly-tying, or of worthwhile work anywhere, as far as

that goes. No, it is not overly large for a bass fly; some amateurs tie them much larger. Undoubtedly the large fly creates a greater disturbance upon the surface of the water, and therefore attracts bass from a greater distance. You have undoubtedly discovered that it is easier to tie a fly on a large hook than a small one. I would like to see one of your flies dressed on a No. 10 hook, say. If I can be of any further assistance to you you have but to command me.—O. W. S.



A STRING OF COLORADO TROUT.

A picture of C. O. Andrews and H. E. Miller of Longmont, Colo., and the catch made by them on the Big South Poudre, 65 miles west of Fort Collins. There are 37 native trout in the string, measuring from 8½ to 13 inches. Compts. H. E. Miller.

#### Letter No. 219—A Crooked Rod.

Editor Angling Department:—I do a great deal of bass fishing with a nine-foot, seven-ounce rod, sometimes using flies and again frogs. I am sure you believe me when I say I get some "action." By the way, this rod has warped; how can I straighten it? I have tried tying a weight to the end of joint while suspended, but to no effect. I own a Bristol 33, old reliable Henshall No. 11, cheap steel trolling rod, Heddon, and for salt-water fishing, a nine-ounce, full agate, one-piece greenheart, with double cane wound handle. It may interest you to know that my record catch last summer was seven small-mouth weighing twelve pounds; the largest single fish weighed two pounds.—H. W. F., Saranac Lake, N. Y.

If you are casting frogs or even still-fishing with a nine-foot fly rod, unless unusually heavy, I can well imagine that it



A 6-lb. wall-eye from the Ottertall River, near Fergus Falls, Minn. Compts. J. O. Swenson.

possesses a crook too serious for any weight to straighten. Honestly, I never saw the fly rod that would stand up under live-bait casting, tho it might do for still-fishing; even so, a seven-ounce rod would be too light. I heard from a man recently who attempted to cast artificial lures with a ten-foot fly rod—steel—and wanted to know what was the matter with the tip of his Bristol when it broke! I can not give you any advice regarding that twisted rod if the heavy-weight treatment does not cure it. I once kept a badly kinked rod hanging with twenty pounds at the butt for six months, and it worked a cure. You certainly have a fine battery of rods, all right, but would advise you to add a one-piece just for good measure. There is rare fun in owning a good selection of casters, even tho one can't use them all all the time, and it does not harm a rod to rest any more than it harms a man. I have heard it said that a man would get more wear out of a pair of shoes if he bought two pairs at once and changed daily. I know that to change rods, revarnishing and re-setting ferrules often, prolongs the life and usefulness of a caster, or any rod, as for that.—O. W. S.

**Letter No. 220—And How Much Did This Bass Weigh?**

Editor Angling Department:—Last September I was fortunate enough to land a small-mouth black bass, which I hooked in a lake up in Michigan. As I failed to take my scales with me I do not know how much it weighed. Here are the measurements: length, 18¼ in.; girth, 12 in. Now, I claim that it must have weighed in the neighborhood of five pounds, but my friends say, "No." What do you think?—G. S. C., Hartford City, Ind.

One cannot say with any degree of certainty what your fish weighed. Measurements are very deceiving. An eighteen by twelve fish, so to speak, should weigh in the neighborhood of four and a half pounds, tho it might easily go five or even more; all depends upon the body form. I caught a sixteen-inch bass once that weighed 2 ozs. over 5 lbs.—and there you are. No, Izaak, "some one had not filled it with shot." Which reminds me that I was called in once upon a time to weigh a fish over which there was considerable dispute. Imagine my surprise to find an eighteen-inch bass weighing almost eight pounds. Without so much as asking the permission of the owner, I ripped the fish open and found it literally filled with buckshot. The sportsman (?) was mad, but so was I, for I felt that Mr. Man thought he could make a bigger fool of me than I am, which is impossible, of course. By the way, it is a splendid plan to carry a tape line and accurate

scales with you on every trip and religiously—that is the word—measure and weigh every capture, setting the findings down in a little book for future reference. I am urging every member of the Fireside to cultivate the habit. Then let us compare notes at the end of the season.—O. W. S.



B. H. DYAS,

A Los Angeles, Cal., fisherman shown while angling in one of Idaho's noted trout streams, Snake River.

**The Book of Modern Tackle.**

**The Free-Spool Reels and Take-Aparts.**

A Discussion of That Type of Reel in Which the Spool Is Freed from the Handle.

By O. W. Smith.

There are just two important operations, so far as the reel is concerned, in casting—"thumbing" and "spooling." Naturally American inventiveness has sought to obviate the "human element" in both operations, making them purely mechanical. As a result we have the "self-thumbing" and "automatic spooling" winches. However, making casting a mechanical operation is not wholly satisfactory. Well says Mr. Samuel G. Camp, in "Fishing Kits and Equipment": "It seems to me that there would not be much sport in using a self-aiming rifle or an auto-striking trout fly, and that there would be very little more enjoyment in using a self-thumbing reel." There is more enjoyment in learning

REMARKS  
CONCERN-  
ING SPECIAL  
TYPES OF  
REELS.

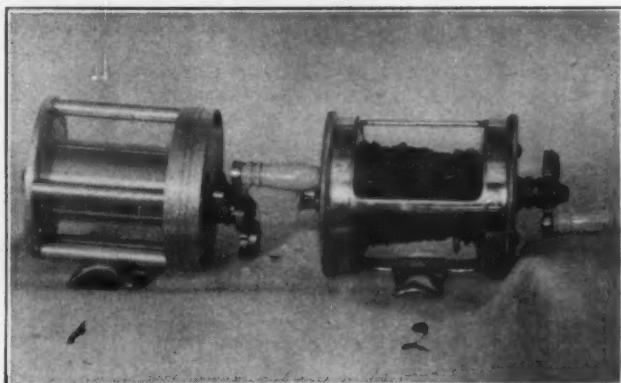
to handle a regular reel with skill than employing a winch that does the work automatically; it would hardly seem necessary to make the statement. However, it is not the part of wisdom to turn down every mechanical aid, taboos all who use them. The man who can find time to master the thumbing of a casting reel will have little use for the self-thumber, tho the man who goes fishing only once or twice a year will discover that such reels are veritable God-sends. But more regarding them later on. While for ordinary fishing I do not employ a self-thumber, I have one self-winder which is a favorite reel, so I am not consistent in the matter of mechanical reels. Aside from the "free-spools"—reels in which by an ingenious arrangement the spool is freed from the handle at the will of the operator—we have many special reels in winches

which well might be denominated "freak reels," of questionable value and seldom of lasting merit. Every season, almost, some inventor produces something new in reels, something that is going to revolutionize casting and reel manufacture, but in a few months the invention is forgotten. Always I am, like all anglers, interested in these freaks and enjoy trying them out, but I much doubt their permanent value. Personally, I believe that the old tried and true type of reel is the best all-round winch for the caster who wishes to become master of the art.

I have barely mentioned the free-spools, tho they deserve a section to themselves. As was pointed out in the preceding paragraph the idea of the free-spool is simple in the extreme. The handle does not revolve in making a cast, so doing away with the menace of the balance handle, the "trouble maker." With the free-spool greater distance can be acquired, and

#### THE FREE- SPOOL REELS.

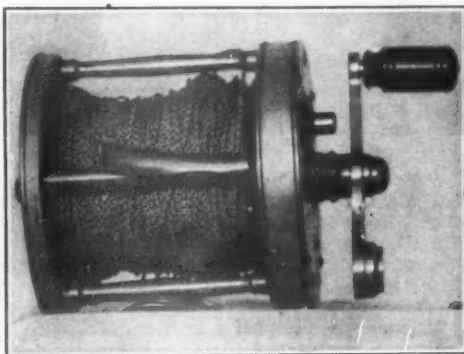
backlashing will be largely minimized. It is the inertia of the moving parts of a reel that retard the line in beginning the cast, and the momentum of the heavy handle after they have been teased into action, that causes backlashes. In ordinary reels almost one-half of the caster's energy is expended in starting the spool which is burdened with the inertia and weight of the connecting handle. As a result the speed of the outgoing line is retarded at first, and tho the balance handle in motion acts as a sort of fly-wheel, the line never regains its lost energy. In a word, the spool revolves faster than the lure can draw out the line, an overrun and backlash resulting. Naturally one would suppose that to eliminate the balance handle would be to obviate two-thirds of the backlashes, and perhaps it would if all else were equal. To the surprise of the one used to the action of the ordinary reel, he will find himself "backlashing" at the commencement of the cast, so easily does the spool spring into action tho of course that very fact prolongs the duration of the cast. Then, too, the free-running reel reduces jar and vibration to the lowest possible degree; you hardly feel the action of the reel, which is in itself provocative of backlashes until you learn to handle the winch. I think I am safe in saying that there are fewer good casters



(1)—A tournament free-spool made by the Redifor people. A beautiful winch. (2)—A "Tripart" free-spool, the contribution of the Meisselbach Co., a thoroly dependable reel that comes in styles and prices to suit any man.

with the free-spool than with the old type of reel, that notwithstanding the fact that greater distance can be acquired with the latter winch. I am not altogether sure but that the free-spool requires greater skill upon the part of the caster.

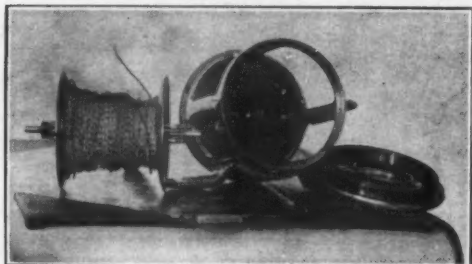
When this type of reel first came to the fishing fraternity the spool was thrown in and out of gear by means of a lever, push button or thumb rest, and the angler was always forgetting to engage the handle when the fish struck, the result being that, tho he cranked the reel to beat the cars, the fish continued to strip line from the spool. My first reel of the type had a little lever on the front bar of the reel which the thumb pressed unconsciously in thumbing the reel. It was and is a good reel, too, tho an angler in the next county might think



"MY FIRST REEL OF THE TYPE HAD A LITTLE LEVER ON THE FRONT BAR OF THE REEL."

that an old-fashioned, horse-power threshing machine was in operation, judging from the noise. My second has a little lever on

the head of the reel which must be pushed forward to free and back to engage. As a result I am compelled to think of my reel rather than the fish. My next had an ingenious arrangement by which the spool was freed automatically in the beginning of the cast, and re-engaged by pressing in on the handle. All the caster had to do was to



THE MEEK TAKEDOWN DIFFERS FROM THE MEISSELBACH IN THAT THE HEAD ITSELF SCREWS OFF.

remember that when he wished to spool line it was necessary only to press in on the reel handle, but nine times out of ten I would forget that very important matter. When I wish to enjoy a good laugh I loan that reel to a fishing companion. What the average man will do when fish are rising freely is beyond belief. No sight is more mirth-provoking than to watch the other fellow crank away for dear life while the bass of the day is stripping valuable line from the reel in yard lengths.

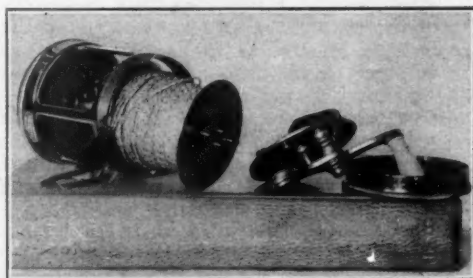
Today, however, if you wish a free-spool you can secure one without a lever or push button of any sort, absolutely automatic and dependable. When the rod is brought down in the first motion of the cast the spool is free, and a quarter turn of the handle re-engages the spool. It would seem that nothing further could be desired. The price is not prohibitive; \$5 will secure one good enough for the average angler, and if you have money to burn, \$10 to \$15 will add sapphires and ornamentation. For about \$30 you can secure the last word in free-spools, a winch for fishing and tournament work. No; today, if the caster desires a free-spool there is no reason under the sun why a good one should not find place in his tackle box. Yet there seems to be something of a prejudice against the free-spools in the minds of the practical anglers; one seldom sees them in actual use. I am not recommending them for Tom, Dick and Harry, tho why I am not I am not altogether clear. Manifestly and confessedly, they are all their makers claim.

When the line snarls upon the spool, even tho it is not a backlash, some will never confess to that. Unless the caster

proceed to untangle it with the utmost care and caution, he may be compelled to take his reel to pieces in order to save his line. I once saw an angry caster go at a fine new line with his jack-knife, and what was left of that "Kingfisher" when he got it untangled was not worth talking about. The taking apart of a screwed reel is something to be undertaken only where the small screws can not drop and one can not

hear the rising fish splash. One should not fish with a dirty reel. Should the winch fall into the sand it should be laid religiously aside until occasion offers an opportunity for a thoro cleaning. (We have in preparation an article on "Care of the Reel.") Realizing the importance and necessity for an easy-apart frame, a number of manufacturers have produced take-down reels of merit. I think the Meisselbachs of Newark, N. J. were pioneers in this field, their "Triparts" and "Takepart" reels being the acme of simplicity and durability. The end bands screw off with a left-hand thread, allowing the spool to fall out unhindered. I know of no better \$3 and \$4 reels upon the market. Both reels also may be secured in the free-spool style at a slightly increased cost. The Meeks also provide a take-apart frame, in which the head and tail plates both

**THE ADVANTAGES OF A TAKE-DOWN FRAME.**



SHOWING THE METHOD OF TAKING DOWN THE MEISSELBACH REEL.

screw off with a left-hand thread. Like the Meisselbach reel, a tubular frame is employed. One need not say that the Meek is a good winch; the name alone is a sufficient guarantee. There are other take-down reels upon the market, one I possess being separated by removing the oil caps at either end. When one can secure such quality reels as these at the modest outlay required there is no excuse for employing a "tin" winch or a brass winder.

Note.—Next month we will have a paper on "Some Reels of Quality," showing some winches with a history, incidentally arguing for better tackle, a hobby of ours.—O. W. S.



THE WOODS ON THE SOUTH BRANCH, "LITTLE FALLS" IN THE DISTANCE. PHOTOGRAPH BY O. W. S.

### Fate Plays the Angler a Shabby Trick.

Being the Editor's story of what happened to him upon a Wisconsin trout stream.

By O. W. Smith.

I have always contended that success in angling is largely a matter of mere luck, tho I am willing to admit that much depends upon the angler's skill and fish knowledge; but just the same, when an unusually large catch is taken, circumstances have conspired to make it possible. But Fate is a fickle jade. Now I submit that when circumstances have played into a fellow's hands, exalted him to a piscatorial heaven, it is a shabby trick for Fate, or any other creature, to step in and snatch victory from his trembling fingers, so plunge the angler into the piscatorial other place.

Some years ago, in company with a friend, I was fishing Thunder River, up in Marinette County, Wisconsin, a favorite stream of mine, by the way. Parenthetically, I am unacquainted with any other Badger State stream offering a greater variety of fishing. Below the "Forks" are deep pools and rapids inhabited by many a square-tail, while above, both branches of the river supplies woods and meadow fishing. Personally I prefer the broad meadow upon the South Branch, tho anglers assert that better fishing is to be had upon the North Branch, which no doubt is true. However, as a rule, I fish the stream with which I am intimately acquaint-

ed, be it woods or meadow, broad or narrow, shallow or deep. I fish the South Branch of the Thunder because I am so well acquainted with its pools and rapids that it is almost possible for me to cast anywhere without looking. Such stream knowledge spells success. I can take more fish from a poor stream with which I am intimately acquainted than I can from a good stream with which I am unfamiliar. As a result I am found fishing many a "played-out" stream, to the great disgust of my companions, who leave me in "single blessedness."

But to return to our narrative. On the day in question it was a bright, warm morning early in the season. My companion set out up the North Branch, while I as usual turned my eager feet in the direction of the other "fork." Keeping along the hills to avoid the mosquitoes—for the first blood-thirsty hatch were numerous in the lowlands—I finally hit the stream at the head of the little meadow. There is good fishing in the woods above, but in that tangle a light fly-rod is out of the question, so I turned my back resolutely upon its invitation. I attached two flies to my leader—a Silver Doctor as end fly and Royal Coach



THE HEAD OF SOUTH BRANCH MEADOW. PHOTOGRAPH BY  
O. W. S.

man as dropper—and set out downstream. I am free to admit that fishing with the current is not the best method, tho the one practiced by me until three or four years ago; probably because until quite recently I have fished slow currents, almost sluggish streams. While fishing upstream is somewhat more difficult, it is more successful. You will find, as I have, that upon coming to a good pool it will pay you to go to the lower end and fish up; that is, if you are fishing down. In bait-fishing, fish with the flowage, by all means—but that is another matter.

As is often the case when flies and mosquitoes are bad, the fish were rising in good shape. Even a duffer might have filled his creel upon the stream that morning. The hungry trout would rise to the shadow of a feather. Again and again I saw two and more fish strike at the same fly. The water seemed alive with shadowy, ricocheting shapes. Had it not been for the mosquitoes and deer flies—for the latter arrived about the time I reached the meadow—but then, I suppose there must be a fly in every pot of ointment or we humans would become too heady. You remember how Omar Khayyam groans:

"Oh Thou, who Man of baser earth  
didst make,  
And ev'n with Paradise devise the  
Snake."

So I suppose those mosquitoes and deer flies were created to keep fishermen from being too comfortable. If Paradise had its snake, why not a trout stream its insect pests? But, shucks! what's the use?

Well, I fished down from pool to pool, taking toll at almost every cast. I thought of my companion over on the other stream, wondering idly if he found the fish—and mosquitoes—as voracious over there; then speedily forgot him in the excitement of landing fighting sparkler after fighting sparkler, each one struggling against the strain of the light rod to the last ounce of its strength. There is something about trout-fishing early in the season when the

speckled beauties rise well to the fuzzy-wuzzy lures—which, by the way, they do not always do—that is different from all other fishing. Then, too, at no other season of the year are the denizens of the cold streams quite so finicky and uncertain. It stands the angler in hand to accept what the Red Gods offer when the season is young with thankful heart.

At last I came to a sharp and deep bend, an "elbow" with which I was perfectly familiar, having fished it times without number in a vain endeavor to capture a large rainbow which I knew had taken up its home under the overhanging bank. Several times I had caught a glimpse of his muscular shape, but only a glimpse, for he would not deign to look at my flies. Looking at my tackle to see that every part was in perfect working and fighting order, I hurtled the cast thru the air, and watched the feathers settle towards the glistening water with that feeling of satisfaction which an angler always experiences when he has handled his lures in an artistic manner. The wee flies, two bits of radiant luster, struck the surface gently, scarcely forming a ripple, hesitated for a moment before responding to the teasing of the under current. While the feathers lingered, trembling in doubt as to the way to go, a large trout leaped straight from the water, turned in midair, grasping the drop fly as he descended. "A rainbow!" I breathed to myself, for I recognized that acrobat's well-known tactics. The battle was on, and I instinctively felt that my capture was a good one. Now, to narrate just how that fish dashed thru the water, stirring the deep pool to its very depths, would be but to repeat what I have said regarding other piscatorial battles, for all ichthyic struggles are to a greater or less degree similar, so I am going to say simply that at last the fish began to tire, and I naturally supposed the battle won. Imagine my surprise, then, to suddenly receive an electric shock, find my rod bending as it had not bent even at the beginning of the struggle, the line ripping thru the water with an audible "hiss!" From somewhere the capture seemed to have borrowed a new strength. I "felt" the fish, and lo! it seemed all of three pounds heavier than at first. I was puzzled. Never had I fought such an unusual trout.

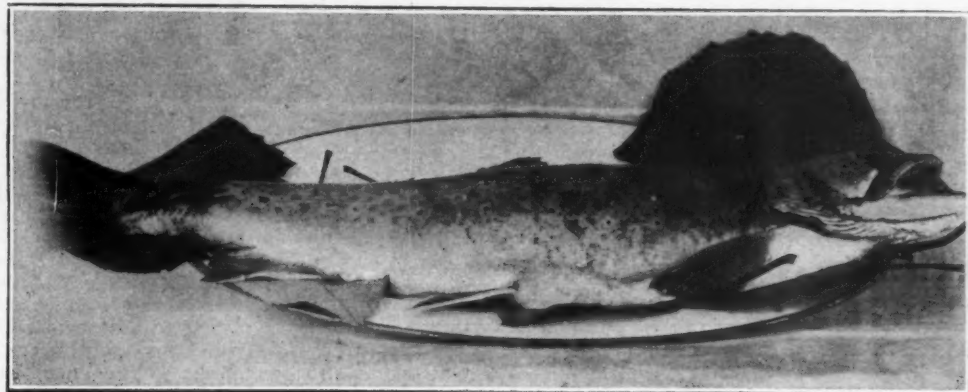
Then my quarry took it into its head to make a voyage of exploration downstream, or as tho it knew of some distant haven of refuge, and I, perforce, followed. On and on the trout raged, while I stumbled and splashed along in the rear, breathing out



sulphurous anathemas. The first bend was passed without a stop or suspicion of hesitancy. A second bend was reached, and I saw just ahead a log lying lengthwise of the creek, and understanding my danger, I gave the butt with all the strength I dared, but to no apparent purpose. The fish reached the log, dove under, sawed for a moment back and forth, then rested, hard and fast. I could not stir the line. I imagined I could see the fish lying beneath the log, gaining strength with each passing minute, and the sight maddened me. Had not the water been so deep—in midsummer it is compara-

stream fishing, calmly, unemotionally netting my capture!

There has been a few moments in my life when language has seemed inadequate, and that was one of them. The reason my fish had so suddenly and unexpectedly gained in fighting strength and weight was apparent. A second fish had taken the other fly just as the first had come to the conclusion that the game was not worth the candle. I had been fighting a fresh fish twice the size and weight of the first. My companion had approached while I was deeply engaged in conducting the fight, and all unobserved by



ONE THAT DID NOT GET AWAY. PHOTOGRAPH BY O. W. S.

tively shallow—the releasing of the fish would have been a simple matter, but as it was I had to reach the other side of the river, and to do that set out down the bank to find a crossing. The grass did not grow under my feet. I pumped my heavy waders along without regard to possible snags and stumps. Perhaps for half a mile I traveled before I found a friendly log, and, panting and sweating, set back up the other bank. I suppose I did the mile very quickly, but it seemed like an hour.

I reached the pool, and there stood my companion, whom I thought on the other

me had taken a spectator's seat upon a convenient stump and observed the struggle. When the fish snagged, and I started to find a crossing, having tossed my rod over the stream, he came up, and finding that the trout had freed themselves, played them over again to their undoing, as recorded above.

Did I not say that there was a fly in every jar of ointment? Why did the Fates decree that my friend should have the honor and pleasure of landing a capture that was distinctly mine? If my friend sees this he will smile, but I—I have never smiled over the incident, and it took place a number of years ago.

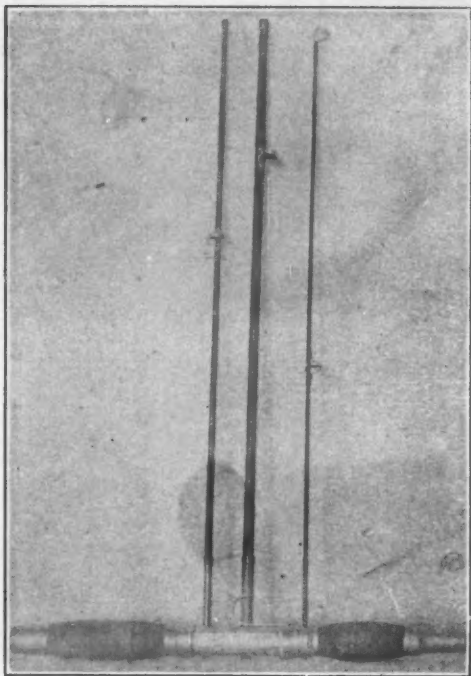
### The Arrival of the Steel Rod.

Being a Tribute to the Most Used and Most Abused Rod of the Day.

By O. W. Smith.

That I am a lover and user of high-grade split bamboo rods, all who have followed my writings for the last ten years must have discovered, yet I have never failed to say a good word now and then for the steel rod. (See the discussion of rod material in the February number.) And why should

I not say a good word for the "iron" rod, pray? Open my rod cabinet and you will discover three steel rods, and there would be four were it not for the borrower who regards lightly another's possessions. Four rods which are representative of the steel-maker's art. We will take them up one by



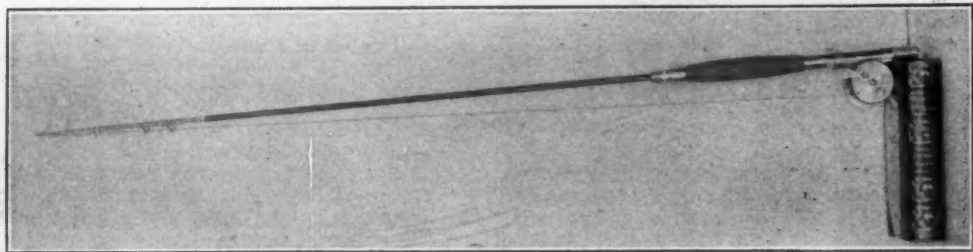
" . . . IT IS A GOOD CASTER, DEPENDABLE AND FAITHFUL UNTO DEATH."

one and converse about them a la Izaak Walton. However, before we pick up the first rod, which we will not pick up, because like Enoch, "it is not," tho not for the same reason, we will devote a paragraph to the development of the "iron pole."

Now, I know very little about the early history of this ubiquitous rod, tho I hope the few facts which I have been able to compile are facts and not fancies. Who first thought of a steel rod I do not know, but away back in the beginning of things a man by the name of Everett Horton invented and patented what he termed the "Bristol" rod. Later he sold his patents to three men who formed the Horton Manufacturing Co.—C. S. Treadway (now dead), F. G.

Hayward and C. F. Pope. So you will see that Mr. Horton had no connection with the Horton Manufacturing Co., tho his name was given to the business as a compliment to him. The first rods were heavy, cumbersome things. I remember one which I saw and handled more than twenty years ago. It was a "steel pole," sure enough. Why, the inventor used to say that one could use his rod to catch fish or beat a carpet. I do know of one that was used to punish an obstreperous boy, and it did not break, either—the rod I mean. Bearing in mind those first heavy tools, it is hard to realize that today a Bristol can be secured weighing only 5½ oz. The angler who desires a steel rod today can be satisfied, for I understand that they are made in eighty different models and three grades. Always, in any angling paraphernalia, purchase the best that you can afford. The best is never too good, and the cheapest in the long run.

My first real rod was of bamboo and cost 79 cents, postage extra. I treasured the thing jealously, and treasure it yet. Bless me, I have wound and re-wound the old "darlint," varnished and revarnished it; today it shines as it did not when it first came to me, and I think would still catch fish if I could bring myself to take it afield. Then one Christmas, when my big daughter was about "so long," my wife conceived the brilliant idea of purchasing me a rod for a present. Many were the consultations behind my back with fishermen and relatives, the result being that Santa Claus gave me a Bristol, 6 ft. 6 in. long, with reversible handle. Sure all winter long I just worshipped that rod, handling it, dreaming of the first day of the trout season, when I should try it out. Came the day at last, as any day will if we wait long enough, and I took my first trout with it. It was too short for average stream fishing from the bank. In those days I had not yet arrived at flies, but in a boat, fishing with live bait, it was all but perfect. I used it much. That reversible handle, by which the reel could be used either above the hand or below, was a great thing. Sometimes I used an auto-

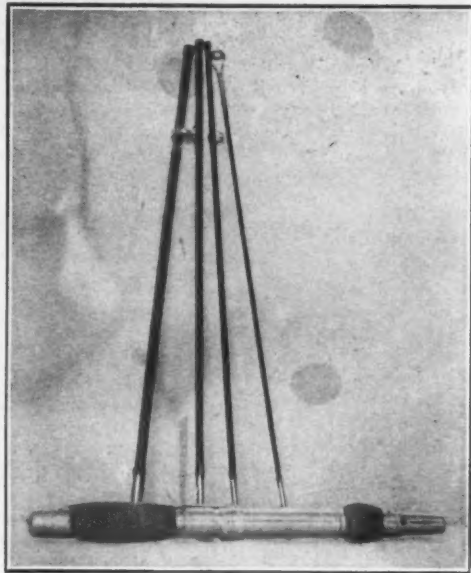


" . . . WHEN THE TELESCOPIC, LINE GUIDES ON THE OUTSIDE, WITH LOCKING DEVICE TO FIX THE JOINTS AT ANY LENGTH, APPEARED, I FELL FOR IT."

matic reel below the hand, and the fun I had with bass was beyond the power of words to describe. When fishing a brushy trout brook I always used the reel in the same position, clasping the line against the reel seat above the reel. I use that method still, but not with that rod, for that is the rod the borrower borrowed and failed to return. The rod my wife gave me, the rod my daughter and I played with when she was a little longer than "so long," that is the rod that has disappeared from my cabinet. For sentimental reasons alone I loved it, let alone ichthyic matters, and I always used it for certain sorts of fishing. For live-bait fishing or trolling it was all but perfect and one could not do better than purchase one like it for that sport. My wife does not know it is her gift that has disappeared, and I hope she will not read this article before I can afford to duplicate it, for I have given up hope that it will ever come back. Only trouble comes home to roost.

In due course of time I became interested in bait-casting, then an enthusiastic "plugger"; and soon casting rods, various materials, lengths and weights found their way into my cabinet, for from a faddist I had evolved into what we may term an amateur expert, and there was some method in my madness. I had heard the steel casting rod much maligned and scoffed at by certain rodsters, and one day came to me a Bristol No. 33, the rod that has since figured so largely in all my casting articles. It is in no wise a cheap rod, but it is a good caster, dependable and faithful unto death. No; it has not the perfect action of some of my high-grade casters, but it is a good fishing tool, and that is what most anglers desire. After the February Outdoor Life appeared, some one wrote asking this question: "Did you ever see a steel rod at a casting tournament?" You see, he did not agree with me when I gave steel the second place in the list of materials. I answered: "No, and I never saw them catch any fish at a tournament, either." That must have settled him or he gave me up as an incorrigible, for he never replied. If you know the No. 33 you will remember what a beauty it is—German silver mounted, with full agate guides. Well, it seemed to me a wee bit too light for the heaviest fishing, so before starting on a musky expedition I wrote the makers asking them if I should use the rod on that wolf of the waters. Pronto came the laconic reply: "Go to it, and if it breaks we will send you another." I have never got a second rod, tho I have tried hard.

The first steel rod ever examined by me was so arranged that the line ran thru the center. After watching it perform upon a trout creek I came to the conclusion that I



"... WELL, THE LAST ADDITION TO MY STEEL WARRIORS IS A COAT-POCKET CASTING ROD."

did not like it—too much line friction—and when the line broke—the best of lines will break when reeling for trout—the operator had a Dickens of a time re-stringing his rod. Then came the telescopic with guides on the outside; that interested me. When the telescopic—line guides on the outside, with a locking device to fix the joints at any length—appeared, I fell for it, knowing that it would be a perfect rod for brushy trout streams, where to lengthen and shorten a rod at will is the last word in convenience. A ten-foot, whippy split bamboo fly-rod is out of place on some of the woods streams fished by me. I prefer my high-class split bamboo to any rod I have ever handled with flies, but more than once I have taken it down to make my way thru thick brush, haunted with the fear of a broken tip. With the telescopic, all that is necessary is to shove the joints together and sing your way out of the brush. There are times, too, when an exceedingly short rod is handy between logs and in reaching difficult places, and in this rod you have all lengths. Still, I am faithful to my bamboo as a fly-handler on open streams, tho maybe I am something of a crank, for three of my companions use steel.

Readers of this department will remember that I said "steel lends itself readily to division." The fact of the matter is it little matters how many joints you have in a steel rod, does it? Well, the last addition to my steel warriors is a coat-pocket cast-

ing rod; of course a caster, for that is the topic "up" with me this season. There are times when to slip a rod into an inside coat pocket, where none may see, is a consummation devoutly to be wished. No, I am not thinking of Sunday fishing, either. This rod will go in a hand-bag, for the joints measure only  $13\frac{1}{2}$  inches; there are four of them beside the handle. Of course the rod can be secured in various lengths; that goes without saying; but right now we are not so much interested in the length of the rod as we are in the length of the individual joints. I can not see that the number of joints effects the action of the rod one iota; it bends evenly from the tip-top to hand-grasp. Assembled, with reel and line attached, I have subjected it to severe tests. My conclusion, then, is, whoever desires a rod with exceedingly short joints had best examine this with care, lest he journey far and fare worse. Easily the angler can secure a tackle box long enough to contain this rod as well as his supply of lures and other tackle.

So I have mentioned but four of the eighty styles of steel rods listed, for it has long been my practice not to discuss rods or any sort of tackle with which I am not personally acquainted. Surely, if the angler desires a steel rod he can find the tool to match his needs or angler's whim. Do not think because the rod is made of steel that

you need not treat it with the respect which is the inalienable right of every true rod. I am often asked what I do when a steel rod breaks, and I am compelled to answer, "I do not know, for I never had one break." I doubt very much if a steel rod of good quality ever broke under fair treatment. Oh, even the best of steel rods might have a flaw, but you know they are guaranteed against that sort of break. A steel rod demands some care. You can not expect it to render good service when you kick it about the house and let it lay in the sand on the bottom of the boat. I keep all of mine in warm flannel cases. After using I wipe them off carefully and oil lightly. When I assemble them I see that each "ferrule" receives its meed of a single drop of oil so that when the hour of down-taking arrives I have no trouble in separating. Suffer a word regarding how to take the joints apart. Do not, as you love your rod, twist from left to right, or right to left; just because it is steel treating it as you would never think of using a wood rod. You will never have trouble dissembling, if you remember the wonder-working drop of "Three-in-One" on the ferrules when you set it up. In taking down, always grasp the rod firmly but kindly, and pull steadily. Play fair with your new steel rod.

Well, tho a long time on the way, as my title asserts, the steel rod has arrived.

### Just Below Fast-Water.

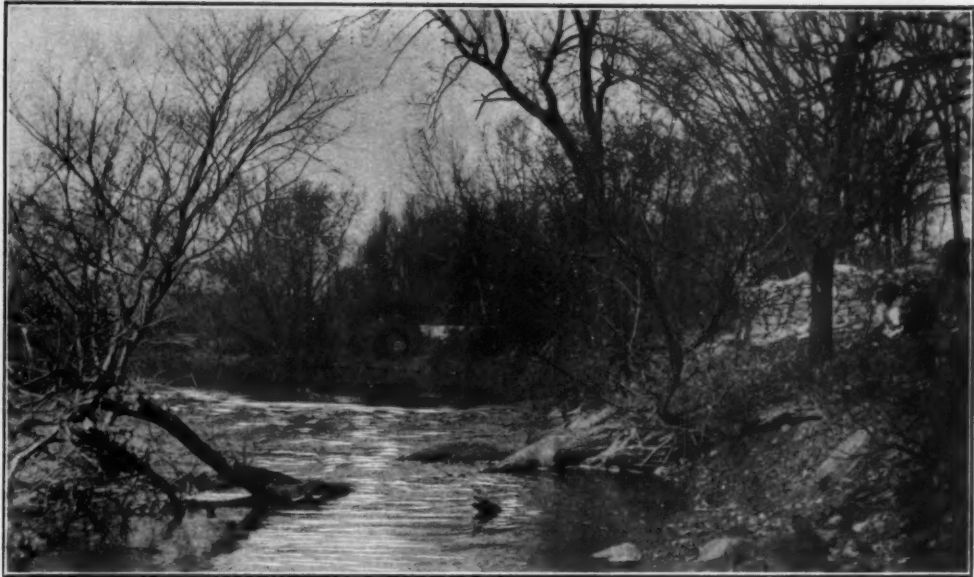
Yes, I know the breath of balsam, mirrored lake and northern trail;  
Oft I've pillowed on the browse at night to dream;  
Yet the fondest recollection fast from memory seems to pale  
When I whip the curling eddies of my stream.

The stream angler, follower of the lonely trail, disciple of the wilderness, friend of solitude, wielder of the zephyr wand, keeper of the twilight vigil—ah! such is he; ye angler of fast-water. I know of no more enchanting method of the angle than to whip some quiet eddy when the day is young. And I would lure you on, not alone as a disciple of the much-sung charr nor again to battle with the salmon trout, but even as a brother of that bronze-backed fighter—*dolomieu*, the small-mouth.

Every trout angler knows some little brook he calls his own, claimed by right of discovery; some unfrequented bit of water where he is monarch of the pools and eddies, foamy whirls and rapid water. Yes, the trout angler seems a little closer to the out-o'-doors. But for this there is no need if we but follow and make some wilderness rivulet our own. It is not difficult nor must the day grow old before we tread its banks, tho our lot be cast within

the zone of city toil. Give us a stream, we'll make a wilderness to be explored!

A claim by right of discovery is not possible to all; we may not chart new water. And yet how little do we really know of water close at hand. It is a common fault to overlook the possibilities of the region round about us; it is a wilderness, for our eyes see it not until we begin to search out the hidden places and explore each lichened nook and fern-lined dell. What a travesty on nature to be constantly looking for the pot of gold at the horizon of the elusive rainbow; to say 'tis better farther on. Ah, yes, we know the treasures of the lake's end and accept with goodly resignation the fallacy of the fished-out stream. The fished-out stream? Rather would I wrest from out its waters one fighting bronze-back than fill the creel with many from a virgin brook. I am neither sentimentalist nor dreamer, tho I confess to a bit of pleasure in the two, but



"Where eddies curl and rapids roar, and moss-grown boulders rise;  
With towering pine as comrades and God's blue in the skies."

The feeling's more than sentiment, the pleasure's not a dream  
When your line's afloat some battler of the fished-out stream.

Why go we a-fishing? Strange there are but two reasons—to catch and to fish. And, queerly enough, the reckless pursuit of either extreme stamps one an amateur. To the vast majority the taking of numbers is paramount—witness the oft-repeated query "how many?" A few—poor fishing; a full creel—something worth the while. And yet the blood-thirst for numbers is soon quenched on virgin waters; 'tis then the vacationist grows weary of successful effort and turns homeward or—turns angler! Which? I cannot often tell; perhaps a few are started o'er the first long portage of the angler's trail.

And then we have the dreamer, idler of the streamside, wanderer, content with self and with nature as it seems, unwilling to make the out-o'-doors reveal its secret lore, a fishing rod for company alone, the dreamer-amateur. Pray then forgive should I care not for companionship with either.

Ye angler is a craftsman, master of his trade, whose fight is fair yet waged with every fibre of his being. Keeness of human intellect is matched against instinctive cunning. The odds are even else the sport grows wearying. He knows the secret haunts and tempting morsels; the fickle moods of ichthyic creatures give him pleasure. His joy is greatest when some self-created feathery tuft deceives and lures yon shadowy form to battle.

Ah, such is he, ye angler of rapid water.

'Twas years ago I met him—just below fast-water—flicking a brace of tiny hackles upon pool and eddy. Knee-deep in a race of gurgling wavelets he stood, clad in sombre garb and trail-worn felt. And e'er I noticed more a burst of water into myriad droplets, a quick movement of the tip alone, a screech of winch. Instantly the whole pool seems in action, the line cutting a swishing curve from right to left, the fairy wand bending gracefully the while. How carefully the line is stripped and yielded; how well the little rascal fights. But now he tires. From some unnoticed niche there appears a folding net—not folded now but out for action. Carefully it is lowered beneath the water and the tired foe man led within its folds. With moistened hand the quivering creature is lifted from the net, the hook gently released and the captive freed to regain his courage and former strength beneath some friendly rock. Again the hackles hover o'er some likely spot, to settle lightly, then to dance away.

'Twas then I know that I had met him—ye angler, angler of the rapid water. 'Twas years ago, and yet the memory never leaves.

Some day perchance e'en you and I may meet—

Where eddies curl and rapids roar, and mossgrown boulders rise;  
With towering pine as comrades and God's blue in the skies.

Iowa.

SHERIDAN R. JONES.

## Fishing for Bass in Canada.

Editor Outdoor Life:—Just a few lines about a fishing trip. The last week in August (1915) a friend suggested that we go to Canada for a week and try our luck; so we started. We went to a little lake called East Lake for six days and I fished for about four hours a day for three days. The rest of the time it was rough weather, and will say I tried most of my baits with very good luck. Then I tried the Tango Minnow. The first five casts I made I got a strike every time and I landed four of them, three bass weighing about four pounds apiece and one three-pound pickerel. Then after that I used the Tango with good success. All the time I fished put together would make one good day of steady fishing.

I went out one morning before breakfast and fished for forty-five minutes and caught one six-pound black bass, one five-pound black bass, six four-pound Oswego or big-mouth bass, and three three-pound pickerel. Over there they call them Northern pike.

New York.

W. E. CUDNEY.

Editor's Note—Mr. Cudney was accidentally shot and killed last September while



Mr. Cudney and his catch.

deer hunting. Although he won First Prize in the Rush Tango Gold Contest (\$50) last year he never lived to learn of it, his administrator receiving the check sent from J. K. Rush, the manufacturer.



SKI-JUMPING AT STEAMBOAT SPRINGS, COLO.

Last February at above town some of the world's greatest performers on skis met at an annual tournament. Regnar Omvedt created a new world's record on this occasion, making a jump of 192 ft. 9 in. The Steamboat course is said to be the swiftest in the world. At the instant of jumping they are traveling at the rate of between 90 and 100 miles an hour.



Outdoor Life will be glad to receive information at any time of any infraction of the game laws of any state. Such information will always be immediately communicated to the game department of the state in which the infringement is alleged to have been committed, after which it will be our aim to exercise a stringent espionage over the carrying out of the game department's duties in the premises. It is not our intention to divert such information from the game department channels, but rather to solicit such information in addition to what has already been sent to the department by the informant.

### How to Hold on a Running Deer.

Editor Outdoor Life:—Kindly answer if it is necessary to "lead" a deer running at moderate speed at 100 or 200 yards with a bullet traveling about 2,000 feet a second. About how much would you hold ahead of him to figure on hitting the shoulder at 200 yards when he is running at a pretty good speed on a clear ridge and you are on another directly opposite him?

About how much would you hold ahead of him at 300 yards?

I don't seem to get any definite idea from fellow hunters, who do not lead at all. I missed two last fall and attribute it to not leading at 250 yards with umbrella point '06 cartridge. Kindly state your idea, please.

North Dakota. GEO. H. HOLT, M. D.

Answer.—While if using a telescope sight in shooting at 300 yards or over, it might be an advantage to "lead" a deer, as then a clearer "lead" could be obtained on it than with a common sight, which would cover the animal at that distance, yet at the shorter distances of 150, 200 or 250 yards, we would never "lead" our game at all in using the modern high-powered guns of 2,500 ft. secs., or thereabouts. We will say

that the average big game animals, such as bear, deer, elk and moose, in making their get-away travel at the rate of twenty miles an hour (some faster, some slower). This is at the rate of about 30 feet a second, while the rifle ball travels at the rate of about 2,500 feet a second. If such a ball requires a second to travel 2,500 feet, it will travel 200 yards in about one-fourth of a second, or in about the time it would take the deer to go 8 feet. Theoretically, following the above facts, the hunter should "lead" his game 8 feet; but no allowance would thereby be made for the movement of the gun while holding. As the gun is following the pace of the deer the bullet is thrown far enough ahead to about hit the spot aimed at.

Our most experienced big game hunters have learned that it doesn't pay to "lead" running game; or, if they "lead" at all, it is an unconscious act. Ned Frost, the Wyoming hunter and guide, who is one of our best shots at running game, never "leads" in this kind of shooting, and we have met others of almost equal proficiency at shooting running game who do not hold ahead. —Editor.

### The Mazama (or Mountain Goat) Gives an Exhibition of Speed.

Editor Outdoor Life:—The Mazama or mountain goat proves himself a sprinter of no little merit and gives the lie to the oft-repeated tales of his slow and stupid movements. Just why His Goatship should have descended from his heavenward abode to inspect a railway system, will probably remain a mystery. But a bright and beautiful morning last fall found him, slick and fat, dressed in a beautiful white wool suit, and standing between the rails of the White Pass Yukon Railway, near Bennett, B. C.,

apparently ready trimmed and waiting for the race.

Had a sports committee spent weeks looking for an ideal spot to pull off the event, they could not have chosen a better course than here where the railway winds in graceful curves along Lake Bennett, where the waters lap the embankment on one side, and the granite forms a perpendicular wall on the other, so that there was no exit even for a goat; and when the train rounded the curve and rushed upon his Goatship there

was no sidestepping the issue. The engineer blew his whistle and pulled open the throttle; the goat stood like a statue until the train was within fifty yards of him, when he turned and with long, graceful bounds took the track straight ahead.

The train was on an easy grade, running at least at the rate of twenty-five miles an hour, endeavoring to catch the goat if possible, but when at the distance of about a mile there appeared a break in the granite

the goat easily scaled this wall, bounding up the side of the mountain without any apparent effort. He turned around on the first ledge and watched the train go by, as unconcernedly as tho this were an everyday occurrence, and of no consequence to a goat. The train crew waved their hats and gave him a cheer as they went by, and it is to be hoped that he still roams the cliffs as careless and happy as ever.

Alaska.

W. H. CASE.

### That Perplexing Question—the Care of Wyoming's Elk.

Editor Outdoor Life:—For the past three months, sportsmen have been considerably aroused by the fictitious newspaper reports of the death of thousands of the Jackson Hole elk. State Game Warden Nate P. Wilson, accompanied by Dr. R. E. Naylor, Government Veterinarian, and Dr. A. W. French, State Veterinarian, have just made an extensive investigation of the feeding facilities and a thoro analysis of the carcasses of the dead calves and cows on the several feeding grounds.

They report substantially that the death rate has been very low considering the large

about 65,000 elk were ranging in the Jackson Hole country. Last winter another count is being made and strong indications are that the elk will number 75,000.

The March Outdoor Life contains an article by Dall DeWeese of Colorado, under the caption, "Save the Elk."

Camp fire clubs, game propagation and protective societies and sportsmen generally must be aroused and urged to work for some feasible plan to save the elk. Plan No. 1 of Mr. DeWeese is the most practicable yet offered, but in my opinion, it requires some changes. Plan No. 2 is entirely out of the



On the winter feed yard. Photograph by D. B. Judd.

number of elk with a high percentage of calves forced down into the valley by the deep snows and extreme cold weather. Some elk have died from mycotic gastroenteritis due to some of the hay fed being musty. No indication has been found of any infectious or dangerous disease; the regular scab mite was found on some of the older bulls, but this condition has existed for several years and, apparently, does not grow worse. The majority of the elk are in very good condition—a very encouraging report.

At the last counting by the game wardens and forest rangers, it was estimated that

question and is not capable of meeting the present conditions. The changes in plan No. 1 have not to do so much with the plan as with the conditions existing in the localities suggested as suitable for the future propagation of the elk.

During the past five years over 2,000 elk have been shipped out of Jackson Hole to Utah, Colorado, Wyoming, the Dakotas, Michigan, California, Oregon and Washington, and 125 owned by Frank Peterson were shipped to a private estate in Germany.

Shipping the elk with proper care and handling has thus proven to be perfectly feasible.

DELL JUDD.

Wyoming.

### Federal Hunting License.

Editor Outdoor Life:—I am very glad to notice in your April issue and in the article on the migratory bird law by Robert Page Lincoln that, in case this law is upheld by the Supreme Court of the United States, a Federal hunting license is contemplated.

This is certainly a step in the right direction and I hope that, in that event, the Federal Government will take over not only the issuance of licenses for the small migratory birds, but for big game as well.

As matters stand at present the people



of the country as a whole furnish the grazing places for our big game in our national parks and forest reserves during the summer, pay the bill for protecting them there during that period, buy the feed that winters them thru the winter and then, if any one of 95 per cent of the people of the country want to enjoy a big game hunt, they have to go into some thinly-populated state where the big game is and pay an exorbitant price for a license and a lot more for a state licensed guide, while the local resident gets his license for a pittance and often hunts without any license at all.

There is absolutely no justice in such an arrangement. A Federal big game license

should be provided which would give to all the right to hunt big game at the same price to all with special favors to none.

As it is now, the Federal Government ranges, feeds, and protects the big game at the expense of us all for the benefit of a few states. These few states charge their own citizens too little for hunting licenses and the non-resident American too much.

The usual ratio is ten to fifteen and twenty times as much to the one as the other, whereas they should be exactly equal. at least where the hunting is done for game ranged, fed and protected by the Federal Government.

EDWIN F. MYERS.

Nebraska.

### Excerpt From a Sermon by Dr. Hornaday.

With thousands of buck deer in the Adirondacks, why should any deer hunter come before New York's highest legislative body, year after year, demanding the right to kill breeding female deer?

No one need look far to find the correct answer.

Primarily the privilege of killing female deer is wanted by men who try to be sportsmen, but who are such poor woodsmen and such bungling hunters that they find it too laborious to hunt until they find and kill antlered bucks. Since the grown men and the fathers of the Deer Family are too

smart for them, they come to the legislature asking for a law that will enable them to take it out of the women of the deer species, particularly the mothers of the herds!

It is asserted over and over again, and so far as I know has not been denied, that when a guide's "sport" is so great a bungler and so poor a shot that he can not kill a buck deer for himself, his guide kills one for him. Mr. M. F. Westover, of Schenectady, N. Y., says in a letter that I have already published with his permission, that "Four out of five deer now shot in the Adirondacks are shot by the guides."

New York.

W. T. HORNADAY.

### An Incident in Deer Hunting.

Editor Outdoor Life:—I am very much interested in the different opinions expressed in your magazine on the killing power of various rifles, and would like to tell you of a shooting scrape a little No. 27, .25-20, trombone-action Marlin got into last fall. My son took the gun out to hunt on Swan Hill, where he jumped two bucks. The first one he knocked over a brush pile. Believing it dead, he ran to the brink of the hill to get a line on it, and saw it 150 yards

below, on the run. He cut loose, and the bullet struck in the back, two inches from the spine, cut off a rib, passed thru the lungs, cutting a second rib. The bullet changed ends and the butt was sticking thru the hide. I am sending the bullet to you, which is a .25-20 U. M. C., high-velocity. The boy was shooting down hill at an angle of 45 degrees. The buck weighed 175 pounds.

Montana.

L. R. WHITNEY.

### No Sunshine on this Ranch.

Editor Outdoor Life:—Upon a dilapidated ranch, a few miles south of Boise, Idaho, there is a duck pond grown full of wild rice. During the fall of the year flocks of mallards feeding here would furnish hunters with the keenest of duck shooting, but large signs, reading "No Hunting Allowed," are conspicuously posted upon all roads passing the place.

However, a prominent surgeon, who is an ardent hunter, started out to the ranch before daylight of the opening day of duck season, expecting because of his slight ac-

quaintance with the rancher, to get permission to shoot upon the lake. When he arrived at the house, he rapped, but received no answer. Then he tried the back door, but with no better result, and thinking no one was home, he drove thru the yard down to the lake.

There he took his decoys from the car and placed them on the pond, built himself a blind, and then sat down to wait for daybreak. The birds soon began to fly, and flock after flock dipped over the decoys. The doctor dropped birds from nearly every

flight, until, after an hour's shooting, he returned to the car with a limit bag.

When he had packed the ducks, decoys and gun into the car and was again driving by the ranch house, he saw the rancher standing over a grindstone sharpening a scythe. He stopped the car, got out and walked over to where the man was working, to thank him for the privilege he had not received. He explained to the rancher that he had rapped at the front and back doors and when he was not answered, had gone

into the field without permission and shot over the lake. The surgeon concluded the apology by thanking him for an hour of sport! During the whole of the long speech the rancher had said nothing, but kept grinding on. Finally he raised his head with a dejected look and said, "No thanks are necessary, Doctor, none at all. If you can get one hour of fun out of this ranch, you are welcome to it! I have lived here seven years and in all that time that is more than I have ever got out of it!"

Idaho.

JOS. A. MURPHY.

### An Unusual Encounter With a Buck Deer.

Editor Outdoor Life:—I have just received a letter from my brother, who is living in British Columbia, in which he tells of a very peculiar encounter with a mule buck deer. He writes:

"I had a regular hand-to-hand fight last fall with a mule buck deer. I had wounded him in a hind leg just above the stifle joint. I did not have any more cartridges with me and undertook to drive him toward camp, so I would not have so far to go after him the next morning; but when he saw me in front of him he charged. The first round I knocked off all his horns I could, and the next round I caught him by what horns he had left and we went round and

round. I succeeded in getting my knife out and stabbed him a few times; after a while he began to weaken and I finished him up by cutting his throat."

I have no reason whatever to disbelieve the above, and while this is the first time I have ever heard of a deer charging a hunter unless wounded and cornered up, I do not doubt but what such a thing could happen.

On one occasion I saw a white-tail buck charge, but he was brought to bay in a clump of bushes by two bird dogs, and believe me, it was moving time when he came out.

P. C. HOOKER.

Arkansas.

### As to Horned Does.

Editor Outdoor Life:—In a late number of your magazine a letter is published from Jas. M. Baldwin regarding horned does. Also your answer to him which is correct, of course, so far as I know. I have, however, seen two such animals and the first one I saw was really equipped with a very fair set of horns. It had a spike horn on one side and three points on the other, but the horns were quite symmetrical and they were as hard and polished as a buck's. I examined this doe quite thoroly and found that there was a partly formed penis, tho no testicles could be seen.—Both this deer

and the one I saw a year later were barren. The examination I made and the reports I received from hunters who saw these animals make me believe that does with horns do not breed. I believe that they are hermaphrodites of the species.

I find that Dr. Hornaday says that there is an unknown connection between the growth of horns and the reproductive organs of the deer family, adding that a castrated buck never has horns that fully mature. This statement, in a way, seems to correspond to my idea. At least, I offer this slight information for what it is worth.

Wisconsin.

J. ALLAN SIMPSON.

### A Trip Over the Game Fields of Oregon and California.

Editor Outdoor Life:—Last May I went horseback from Medford, Ore., to Gold Beach, Ore., via Crescent City, Cal., and up the coast and returned via the Rogue River pack trail to Grant's Pass, Ore. I also rode up Grave, Wolf and Greyback creeks from their source to mouth and thru the contiguous territory. I then spent several weeks in the Briggs Creek country in Oregon. The trip took eighty-six days and covered a distance of 900 miles; twenty-one days of this time, I rode in heavy rains and cold winds.

This is Oregon's big-game country, and I believe I am perfectly safe in saying that there are more deer in this district than there is in any other entire state in the Union.

The deer are nearly all of the small, black-tailed variety, there being but very few of the Pacific, or bench-legged, deer left. Some call this last named variety the "prong-horn" deer, owing to their having but two points to the beam. As I have killed several of this variety of deer, I will

describe them for the benefit of those who have not seen them: The legs are very short, body long, broad and heavy, head short and very broad between the eyes and ears; antlers have very heavy beams and but two points. Animal lays on immense layers of fat. Color but little if any different from the black-tailed variety.

This species of deer should have a permanent closed season placed on them at once or they will join the great Dodo. I doubt very much if there is as many as one hundred of them left on the entire coast.

On Smith's River in Del Norte County, California, and on Pistol River and Hunter's Creek in Curry County, Oregon, there are a few elk of the large variety known as the Roosevelt elk, but not many, and should be protected for a number of years longer.

In all of this country there are both the small brown and black bear, mountain lion, silver grey squirrels, and in the streams as fine salmon fishing (Alaska not included) as the world affords. Trout fishing for mountain trout, rainbow and steelhead trout in season is unsurpassed. Blue grouse, native pheasant, mountain quail and band-tailed wild pigeon are quite plentiful. I questioned quite a number of the most prominent people in the districts thru which I passed and some noted half-breed and full-blood Indian hunters and trackers whose statements can be relied upon. The deer, according to these men, are not holding their own at this time, due, they say, to the immense growth of noxious brush all thru the belt since the Forest Service has kept down the fires so thoroly in the past nine years. You now seldom see over ten or twelve black-tailed deer at one time, while before the brush took the country and ruined the feed it was no uncommon thing to see as many as seventy-five in sight at one time and all in good shooting range. The brush also affords the mountain lion and bobcats great protection, making the deer easy prey for them, so that they are noticeably on the increase in a large part of the district. They also tell me that the salmon are decidedly on the decrease since the private hatcheries have been discontinued, as was done several years ago.

Bear of all varieties are decreasing, while the elk are showing an increase in Curry

County, Oregon, but not elsewhere in the belt. In Del Norte County they are just about holding their own.

Band-tailed wild pigeons in Del Norte County, California, and in Curry County, Oregon, are slightly more plentiful than for some years past, while all thru the district the mountain quail, grouse and native pheasant are decreasing.

The silver grey squirrels are just about holding their own. Of mountain and other trout, one can catch in any clear stream the limit any time in season, the fish rising well to the fly and spoon. The Rogue River salmon fishing is the finest in the world, is my personal belief, and should be better known to the disciples of Izaak Walton.

The Lower Rogue River people do not seem to take kindly to visiting sportsmen coming in for the purpose of big-game shooting, but welcome and encourage those who come in for the purpose of fishing with the rod and line and extend toward them every courtesy possible. I inquired of several men why the trails were not improved and in better condition, so that people could get in and out with more ease. All answered about the same, and that the trails are too good now, and that if they were any better the city sports would come in and kill all their meat, while if they remain as they are they will have enough to last about a thousand years. One has but to negotiate these trails once to most thoroly appreciate that statement.

If one wishes to try the streams for trout or salmon fishing they can do so with but little trouble by getting off the Southern Pacific trains at Medford or Grant's Pass, Ore., or the boats at Gold Beach, Ore., for the Rogue River and its tributaries, or the boats at Crescent City, Cal., for The Smith's River and its tributaries. At Crescent City they will be in the heart of one of the greatest belts of giant redwoods in the world, a sight of which is well worth the trip.

For the small bear and deer of this country one should confine themselves to the small-bore, high-velocity rifle, any of the following being sufficient and amply powerful: .25-35, .30-30, .32 Special, .250-3000 Savage or the .22 Newton and the Newton .256. My personal preference is the .22 and .256 Newton on account of their extreme accuracy and long range for the hard shots across cañons. LIEUT. WM. H. SWETT.  
California.

### Game Notes.

Byron N. Hawks of Astoria, Ore., a reader of *Outdoor Life*, who hunted last fall in the Cassiar District of British Columbia, and who has written a very interesting account of his hunt, to be published soon in this magazine, writes as follows concerning the

country: "This is indeed a wonderful trip. There is such a great variety of big game, birds and fish, and such beautiful scenery, that it surely is fascinating to one interested in the wild and outdoor life. It might interest you to know that this country is hunted

but very little considering its size. There were only twelve hunters in last fall—just like a drop in the ocean. If you should ever be so fortunate as to take this trip, you will no doubt receive more than one surprise with regard to the records of some of our prominent sportsmen while hunting there. One very noted writer who made this trip wrote quite an interesting article some time back. The climax of his story centered around the killing of a grizzly bear. I mentioned this sportsman's hunt to the commissioner at Telegraph Creek and found that this said bear had been bought from an Indian right in Telegraph Creek. There are numerous other cases similar to this one. The Indians up there are surely a wonderful lot compared to the ones we come in contact with in this country. They are very bright and witty and are great hunters."

H. P. Schultz, a ranchman living near Burns, Colo., writes that he saw seven carcasses of deer last winter near his place that were killed by cougars.

As an argument upholding the belief that animals sometimes reason, Henry Jurgens, Jr., of Wynot, Neb., recites the following incident of a dog's act in disposing of a skunk: "One day I heard Old True barking along the creek, and father and I went down to see what he had. When we got near him he would run toward us and then back to an old hollow log. Just before we reached the log he made a dive toward one end, where he had been gnawing, and came back with a large skunk. Usually about one shake was all it required for him to put a skunk out of business, but he had been unable to get hold of this one properly, and the skunk had fastened itself to the dog's jaw in such a way that he could not shake her off. As it was only a few yards to the creek, and as there was about a foot of water running at this time, the dog ran down into the water and held the skunk under water until it let go. Was this instinct or reason?"

Josh Allen of Oso, Wash., writes us of a red-letter day that he enjoyed on January 9, last, when with his dogs he bagged four cougars and one bobcat. The largest cougar measured 8 ft., another 6 ft. 2 in., and the remaining two measured 6 ft. While trailing them he found the carcasses of two deer that had been killed in four days. The cougars and cat all "treed" before being killed.

How well the Colorado State Game Department is doing its duty may be seen in the arrest on April 9, 1916, of Brush Monroe of North Park, Colo., and the confiscation of six sheep heads that were sent by him to a Denver taxidermist, and found there by the game wardens. Monroe paid fines and costs amounting to \$615 and was released. The sheep had been killed in the section about twenty miles south of Walden, Colo., and three of the heads are about as pretty and beautiful specimens as one could wish to see.

The big-horn, or Rocky Mountain sheep, in certain parts of Colorado are getting so plentiful that a short open season on them has been suggested. We believe that by opening the season on sheep for a week in an inaccessible section of the state, such for instance, as the Flat Top country, it might do no harm to them, but we would be unalterably opposed to an open season on Colorado sheep that would allow of their being killed in any of the places where they have become semi-domesticated, such for instance, as the Ouray district, Estes Park, the Royal Gorge country, Pike's Peak section, etc. A man we know well says he counted 200 sheep in one band within the past year, and another counted sixty-seven in one bunch, all in the Flat Top country. Deer might also stand a short open season of a week, while the blue quail of the Western Slope are multiplying so rapidly that there should be an open season on them. We shall have more to say on this subject in a subsequent issue.

### Encourage the Boy Scouts.

Brother sportsmen, encourage the Boy Scout and his activities. Take him into your confidence; invite him and his troop to your summer home, to your lodge or to your hunting or fishing rendezvous. If you belong to a hunting or fishing club which has a lodge in the woods, make arrangements so that an invitation may be sent to a Boy Scout troop to make use of the lodge for a day or two, and offer prizes for merit in woodcraft. The boys can spend a day in "hiking" to such a resort, a day there amid the charms of the open that they crave so much, and then a day in tramping home. Let us welcome the Boy Scouts into our realm of woodsmanship and comradeship. They form an asset for future generations as young game protectors that we should build up. They are the most profitable interest-bearing notes that we can put out.



## Lest We Forget—Tips on What to Take Along on That Outing Trip.

Robert Page Lincoln.

It was a well-organized trip, was that in which four fellows were included, object: a trip into the wilds, over the long flowing road by means of the canvas-covered bark. Everything had been selected with care and deliberation and the utmost of keen thought had been directed toward the selection of the right sort of a shelter tent, and the right kind of a canoe; and since there were two of each varieties naturally you may understand it took a great deal of thinking to get all things in shape—because, while they had never been on a long trip of the sort before, they had read the sporting magazines and had acquired a great deal of undiluted wisdom. The trip progressed nicely the first day out, and then night fell. Darkness sifted down out of the shrouds of night and aside from the fire they had no means of light.

"Jim," uttered one of the fellows, a sudden uncomfortable conviction assailing him, "we have forgotten to bring along a lantern, or a camp light. Now why in Sam Hill didn't we think of that?"

"Too busy I guess monkeying around and selecting the larger things. If we had not wasted all that time going over the bulk of that duffle we might have, one of us at least, thought of such a thing as a light—not to mention such a handy thing as an ax or even a hatchet. Do you know that we have neither ax nor hatchet with us?"

"Yes," sputtered one of the fellows who had just come up from the lake's brim, having washed the dishes—"and believe me, fellows, small as it may seem, but by no matter of means the least is two, three or four dish-towels; and a brace or so of face towels. I suppose you know that you have been wiping your faces on a strip of two by four balloon silk."

"That's enough," muttered Jim; "I am not going on this trip without going right, even if I have to paddle from here to the Gulf of Mexico for them. We will make out a list of the smaller necessities and Jack and I will paddle down to the Hudson Bay post again in the morning, while two of you fellows watch camp."

One of the necessary things is the camp lamp. Around camp and on the trail there

are a hundred and one uses for that highly valuable instrument, and the acquirement of one is a positive demand. Past inventiveness assured us of such a thing as the carbide lamp, and thanks be that we have it. It costs not quite half a cent the hour to burn one, and even then you use it only during the hours of darkness around camp. I am thinking principally here of the Baldwin Camp lamp, one of the best known of all the carbide lights, and which is in use wherever you choose to go. The small model Baldwin weighs six ounces, costs, if I am not badly mistaken, just one dollar and burns three hours to one filling. A better grade of a Baldwin, in a more durable and bright polish, over better material, costs about a dollar and a half. The large model Baldwin weighing something like ten ounces, with more furnishings than the smaller models, costs about two dollars and is well worth its price. This larger model is capable of burning almost six hours at one filling. The Baldwin gives out a good penetrating, revealing light that burns good and clear, without flickering and sputtering as some do. Of course one must know how to run one, to fill it, etc., which is very readily taught you by anyone with a practical head. He will also give you some information about how, and why a carbide lamp sputters, and does not run right, there being a few quirks to this that I am hardly able to explain here, and can better be explained with the material actually in hand. Enough of the carbide should be taken along, gauged in accordance with the length of your trip. You if course agree on how many hours you are going to burn it in a day and by this you can easily figure out how much you will need on a two-week or a month trip. The carbide crystals are kept in air-tight receptacles; if over-exposed they disintegrate and lose the power within them to produce the right light.

Personally I believe that it is always a good thing to have a small flashlight with you in camp. Like the lamp, on a smaller scale, it is a very good addition, and for my part I would hardly be without one. The carbide lamp is generally used to light up

the home circle of the camp and is hung up stationary on some nail or twig. One desiring to go down to the lake, or over an odd bit of the trail near the camp for something or another, and not desiring to take the main light away from the other members of the party will find the flashlight of a great practical value. The Eveready lights are, in this matter, duly noted and are to a great extent in use thruout both domestic life and camp life. The Eveready lights are furnished with the famous Tungsten batteries, the claim being made that they are four times as good as any other batteries, and they have with them the seal of guarantee. The Eveready flashlights can be had in various sizes from the small vest pocket size to the larger flare lights costing all the way from 80 cents to \$2.50.

There are those who hold and believe that it is always a good idea to include in your outfit, even if you have the carbide, or acetylene lamp such a thing as three or four good candles, for emergency use, entirely, of course. Personally I never carry candles with me but I know of many who do—in fact who use them as a light, in combination with the campfire. This, by the way, is a very inadequate system and one does not gain any satisfaction out of it, the same as some men go upon a trip and leave out the shelter tent, either thru desiring to go as light as possible or out of inability to buy a shelter tent—and make a cover for themselves by overturning the canoe and setting it ajar facing the campfire.

Now an ax is more or less of a necessity upon a camping and canoeing trip, and as to just what sort of a trip you are making depends the variety of an ax that you should purchase. If you are going on a canoeing trip what you need is a small ax, for you will not need to fell large pines or any large trees, as would a person going into the woods expressly to build himself a cabin, in which case a strong, durable right balanced ax, either one bitted or double-bitted is a necessity. But for other trips, where this is not demanded, you want just a light ax of above twenty ounces and not over twenty-seven, for that will be adding an uncomfortable heft where heft is not desired. These small axes are carried in many ways, either as they are, or in the pocket, or in a sheath at the belt, the latter method being by far the best of them all. I like the Marble safety pocket axes well enough. They come in good material and have the virtue of being well recommended, and are made of splendid steel. These axes are protected, as to edge, by what is known as a guard, which is readily adjustable, and is made of nickel-plated brass, with a lead lining which will not hurt the keen edge. One kind of the Marble axes is provided with a

claw, and this, naturally, is the sort of an ax that should be taken along for you need it to pull nails with. Now a claw, therefore, is a vastly good thing. If you are without it you may be in a pretty pickle when it comes to drawing nails. For this reason I like the Marble axes of the sort. Of course axes can be had without guards, and without the claws, with long or short handles, the first mentioned grade having metal handles (which I am not overly enthusiastic about) wherein the latter mentioned axes are furnished with wooden handles.

Marble axes are carried in special sheaths put out expressly for use with their axes, because the sloping guards make it quite impossible to carry them in an ordinary belt sheath. They may be had either in canvas or leather, costing 25 cents for the canvas sheath and something like 80 cents for the leather one. Ax sheaths, of course, may be purchased for common, unguarded axes of heavy leather, with, or without, the shoulder straps. Without shoulder straps you connect it to the belt; with the straps you lug it over your shoulder or insert it in your duffle if you so like.

There is no desire on the part of the present writer to advertise the Marble goods (or in the smallest particle to advertise any goods), but like the findings of Mr. Haines, and others, these axes have their virtues, and if you do not desire the claw or the nicked sheath you can easily find other makes, or a Marble ax also that will fill in your wants. I suppose I do not have to mention that good material is an absolute necessity. For from \$2.00 to \$3.50 you can expect to get some very likely things. Under that I will guarantee nothing.

If there is one thing I have no time for it is a regulation hunting knife that you carry, sheathed, at your belt. It looks vastly dramatic, and frontiersmanlike, and there was a time when it was in its element but that day has quietly passed into the beyond along with the hoop skirt and the white cravat; and Boone and Kenton and Harrod. If you see a man in the woods carrying a hunting knife to belt, conspicuous in view, take a good look at him and see if he is a near-Boone or if he is a really and truly real thing. I will not argue that good men do not carry them, and that these men are not the acme of woodmanlike efficiency; I merely, as a general rule, include here those of our population who come from the centers of civilization, into camp, and who must have a knife of some kind along with them to use for any one of fifteen or twenty things. Wild Bill Hicock fought his grizzly to the death with the keen-bladed Bowie; and fought his Indian chief to the death in the duel, but that belongs to the past. If you carry a hunting knife, carry it so that

your coat covers it at least. Even if a bear should hop up you will have time to get at it without undue worry.

A compass in itself is a very small thing and yet what an efficient and eminently desirable a thing it is. If you go on a trip anywhere where there is near a chance of your going a-stray be sure and include one of these compasses in your outfit, or have one that you can carry readily enough in your pocket, with, preferably a cord attached to it, and attached in turn to some part of your garment so that it will not be lost. I have no time for the open-face compasses. They should be fully and adequately protected, as are the affairs that come in the so-called hunting cases, with the cover, like a watch, that may be pressed down to hide the glass. With luminous compasses I have had little or no experience.

A thing to keep your matches dry within is another handy and necessary thing, and for the purpose I often use a bottle well-corked, so that no moisture will enter it. Tin cans with tight-fitting covers can easily be utilized as match safes, in fact they are far more safe from destruction than are the bottles. Suit your fancy.

If you are going on that camping-canoeing-fishing trip a likely addition to your paraphernalia, is a short or long barreled Stevens pistol. This will come in handy in a number of instances, as you will find out, and it is just the thing to have along when you go out for muskellunge or large fish in that you can shoot them when you get them close to the boat, thus doing away with the need of a gaff.

How about that flapjack turner? If you have tried flipping pancakes with a common knife and have properly made a mess of it, remember next time to get a flapjack turner. Five cents will procure you a flipper that can be adjusted to any case knife in a half minute, and takes up a minute corner of your pack.

How about those security pins, have you got them tucked away there, Jack? Don't forget those security pins. You will need them in any one of a hundred ways, and when you do need them you need them bad. Don't get the common household kind, but get the woodsmen pins, of spring steel. I think I paid 25 cents a dozen for my three-inchers. These pins you can use to pin together your blankets to form your veritable sleeping bag, for it is foolish to waste blanket, with a chance of allowing the chill to come in on you by not pinning the blankets together along the edges. This gives you a chance to make useful your whole blankets. This is only one of the uses of the security pin. Do not forget them!

Don't forget that sharpening stone—the carborundum stone to tell the truth, on

which you can lay a fine edge to your ax or your knife. It certainly is a very necessary thing and no mistake.

We will now enter upon the domain of the things that you certainly should think of and yet which may pass your fancy, or which you may have thought of yet discarded in the final rounds of duffle assembly. Now the matter of garments for instance. Suppose you are going into Canada. Even in summer the mornings and the evenings may be very chilly and to be properly protected is a very good idea. Therefore a suit of light underwear and a suit of woolen underwear is certainly not a bad idea. And one thing I would suggest and that is: if you possibly can do so, add to your outfit a sweater. A sweater of any sort will do that is warm. The jacket sort, if you have one is the real thing. By all means try and bring such a one along, for it will pay you with warmth when warmth is in demand. If you are going to buy a new outing suit, don't forget that Duxbak sheds water admirably, is warm and servicable and is of the right shade of color. And another thing: remember that the best footwear on the rough portage is the moosehide shoe-packs, or mocassins, with good soles to them. Get them large enough so that they will admit two pairs of socks. Two pairs of socks in the summer may seem out-of-place, but let me tell you they are not a bit too warm in some northern climes. Shoe-packs, or soled mocassins, as they may be called, are the clear thing for that canoe trip.

And now about your food supply. Have you entered a certain portion of each of the condensed foods.

Have you remembered the dehydrated vegetables?

The evaporated soups?

The milk powders and the egg powders?

The pre-cooked and powdered George Washington coffee?

The sweetener, a hundred per cent sweeter than sugar?

All these things are the very best that one can bring along, and they are the acme of lightness, and substantiability, containing the very best of food values with the bulk, waters and useless elements withdrawn. You leave them behind at the cost of carrying the bulk of the same thing.

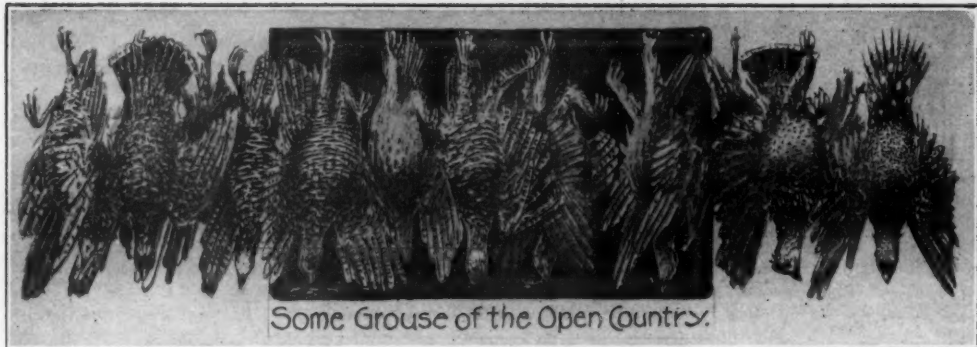
Remember the watch, and the razor!

And last of all, appearing in this screed like glow-letters in the dusk remember the mosquito netting; and some carefully prepared and guaranteed fly dope!

And so that you will further not forget the highly necessary small things, begin with the small things and work up.

Now you can believe me or not.

So-long; see you again.



Some Grouse of the Open Country.

### Protecting Our Game Birds.

We are all agreed on one thing—save the game. But the question is—How? Three widely different elements must be harmonized if the end universally sought is to be accomplished. These three main elements are: (1) The natural conflict between various economic institutions, such as the objection of farmers to shooters, and the eating of fruits, grains and other man-food products by game; (2) the different kinds of game, many of which prey upon each other as their natural, and even necessary food supply, as the mountain-lion lives on deer, for instance, or the fox lives on game birds; and (3) the vast difference in climate and in kinds of game in the widely separated parts of the United States. This phase of the case is further complicated by the migratory kinds of game. Thus some parts of the South consider it an injustice to be deprived of shooting during certain seasons so that there can be better shooting in the North when the birds migrate. This is again complicated by the fact that many migrations are not merely back and forth, over the same route, but that the birds migrate in a great circle, so that some sections of the country get spring shooting or none at all, as the birds do not come that way in the fall flight.

Game preservation takes many other forms, of course, as each section of the country has its own particular troubles along this line, but the three main elements mentioned above seem to apply almost universally. And many have been the suggestions made, that our wild life may not disappear. Men equally honest and intelligent often hold exactly opposite views. Some say, for instance, that, to increase or even to save the deer, the wolves and the big cats must be exterminated. On the other hand, equally good men claim that to destroy all the natural enemies of the deer, for instance, means that the physically weak and the mentally dull deer will live as fawns, will breed with the stronger deer, and will soon ruin

the whole deer race. They point to the Newfoundland and to the St. Bernard dogs as examples of their ideas.

Then, too, the fur man, from milady with the sable neckpiece to the Indian trapper, say that fanged and clawed fur bearers are of more final importance in the world of men than are the birds on which the fur bearers live, and that the wolf, the lynx, the bear, the mink, the wildcat, and others of their kind must also be saved to man.

Nine out of ten of all these unsettled questions seem to boil down to this one question—"What is the game for?" If for amusement, then the trapper and the fur man have the worst of the argument, and the market hunter is beyond the pale. But if the answer is "Food," then the sportsman is in bad from many standpoints. Or can the two elements be combined? Can we have some shooting for pleasure, some means so that the man who does not hunt may eat wild meat, and some way to raise the fur bearers, all three at the same time?

"Game Farming for Profit and Pleasure," a booklet issued by The Hercules Powder Company, and to be had free from this company at Wilmington, Del., contains much pregnant information concerning the possible increase of game birds. Naturally the whole book is given over to feathered game.

The booklet, summed up, advocates artificial breeding of game birds under semi-wild conditions on farms under the care of game keepers, and that the farmers be paid rent for this privilege. To offset this expense, the booklet advocates the selling of game in the open market under proper restrictions. This is the system finally worked out successfully in England, and the same system is strongly recommended for a fair trial in the United States. It is claimed that where today the farmer is opposed to shooting on his acres, that if game birds were considered as a part of the annual crop, and hence yielded a cash profit thru renting out the shooting rights



annually, that then the farmers would warmly aid in having as much game as possible on their farms, and further, that the present friction between the farming and the shooting interests would disappear, as each would have the same end in view.

Today, for instance, in some parts of the country the farmers are poisoning quail and other, not only good game, but excellent food birds, because the birds are so numerous as to destroy the crops, or seriously injure them, such as berries, grains and fruits. And no one can claim that the farmer should thus support game birds in which he shares no profit, as he cannot rent the right to kill them on his land, nor can he kill them himself and sell them in the open market for the cash that he could have obtained for his game-eaten grain, berries and fruit.

The writer of the booklet frankly takes the position that the age of wild game in America is gone, that today we must choose between one of two things—extermination or semi-domestication. This means winter feeding, protection from natural enemies, and other artificial aids to increase. For a large part of the United States, especially in the East, this conclusion is undoubtedly correct. Here is what he says about the grouse, for instance, and the same argument applies to most of the other forms of feathered game. The chapter on the rearing of wild ducks is especially interesting, but as it does not apply to the general game argument of the book as a whole it is omitted here for want of space.

The whole argument, which is undoubtedly sound, is that no game of any kind can withstand both its natural enemies and yearly shooting. If we would shoot we must not only help to keep down the inroads of the natural enemies, but must also aid in reproduction and in supplying artificial feed to take the place of natural feed destroyed by man when he cut down the forests and plowed up the meadow lands for farms. In short, that game cannot live on farms without help, and that our wild land does not now supply sufficient food and protection, as it once did before man himself began not only to prey on the game but also to destroy its natural shelter and food supply.

English game birds are sold in the London, and even in the New York markets, yet English game birds are plentiful, and there is better shooting in England and Scotland today than there is in America. Here is the argument:

"The ruffed grouse undoubtedly eats grain and often procures it along woodland roads, where it resorts to dust and to feed on the abundant berries.

"More than one-fourth of the yearly food of this bird is fruit. Its diet includes the hips of the wild rose, grapes, partridge ber-

ries, thorn apples, wild crab apples, cultivated apples, wintergreen berries, bayberries, blueberries, huckleberries, blackberries, raspberries, strawberries, cranberries, sarsaparilla berries, and others; wild and cultivated cherries, plums, haws, sumacs, including the poison sumac and poison ivy, which are taken with immunity.

"Sportsmen are well aware of the fondness of this grouse for wild grapes and apples, and they often find them in places where grapes are plentiful and in old fruit orchards, especially on abandoned farms. The wild rose hips and sumacs are excellent winter foods because they can be obtained above the snow. Wild and cultivated sunflowers furnish excellent food, and many other fruits and seeds of varying importance are on the ruffed grouse's bill of fare."

\* \* \*

"The prairie grouse weighs about two pounds and its flesh is tender, juicy and delicious. Some prefer it to the flesh of the ruffed grouse and I am inclined to side with them. It certainly is a magnificent wild food bird and well worth preserving. The way to save it from extinction, paradoxical as it may seem, is to keep the markets full of grouse during a long open season. The money received from the sale of some grouse will enable sportsmen of small means to meet the expenses of looking after the birds and dealing fairly with the farmers who have posted their lands.

"Grouse cannot stand the ordinary destruction by natural enemies and the destruction by guns at the same time. Since the birds continued to vanish after shooting had been prohibited, it is evident that there are other causes for this besides shooting. The destruction of their foods and covers are sufficient to account for the loss. Cats, rats and roving dogs in many places prevent any increase in their numbers. Prairie fires and floods often exterminate them on large areas. The same may be said of the sharp-tailed grouse, and the "prairie chicken" of the Northwestern states which once was plentiful as far west as California; this bird has suffered, also, from the loss of its food and covers. The prairie grasses, the wild rose, the wild sunflower and many other food plants often are absolutely destroyed on the big wheat farms where these birds formerly were abundant and where they are now extinct or nearly so. In addition to food the briars afforded safe protection when a hawk or other enemy approached. I have seen a line of telegraph poles across a big wheat stubble when there appeared to be a hawk on nearly every pole, and there was absolutely no place where a grouse could hide on the vast prairie which extended to the horizon. Of course there were no grouse. I found the sharp-tailed chicken very abundant in the valley of the Rosebud, Montana, in the days

when it was hardly safe to shoot there on account of the Indians, but the wild roses were also very abundant and afforded protection to the birds and food in the winter, when they lived largely upon the rose hips which could be seen above the snow. If we give the natural enemies a good chance to eat them, by destroying the prairie chicken's nesting sites and covers, and if we destroy absolutely their winter foods on vast areas, we must not expect the birds to return to places where they have become extinct because we have enacted laws prohibiting shooting.

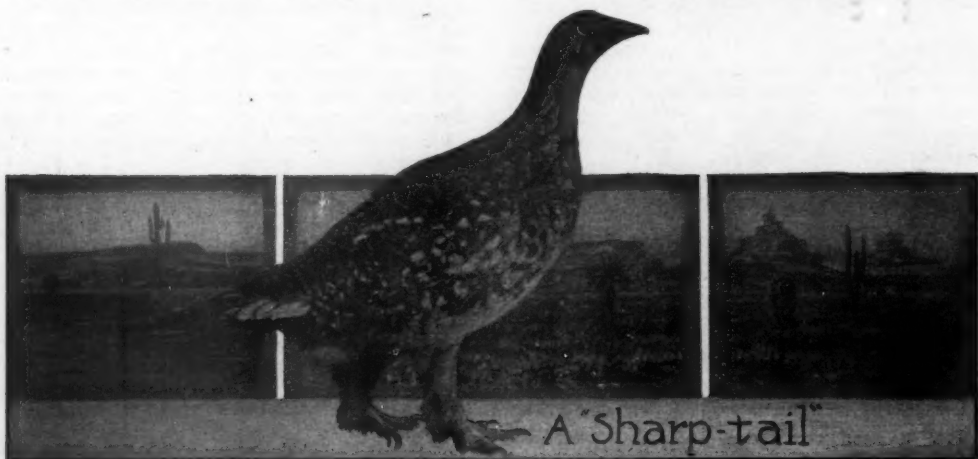
"The food habits of the prairie grouse are well known. They eat many insects, especially grasshoppers, from May to October, and are valuable aids to the farmer for this reason. In the fall and winter the food of the prairie grouse is mainly vegetable; fruit, leaves, flowers, shoots, seeds and grain. Dr. Judd says: 'Like the bobwhite and the ruffed grouse, the prairie grouse is fond of rose hips and the abundant roses of the prairie yield 11.01 per cent of its food.' In Kansas and many other states the wild sunflowers, goldenrod and other natural foods were tremendously abundant, but thruout most of the range of the grouse these foods have been destroyed absolutely. It would pay to restore some prairie grass, wild roses, sunflowers and other covers and foods which are essential to the birds' existence. No farmer or sportsman can be expected to give the land, time, labor and money needed to save the grouse simply as a bait for trespassers. This grouse is fond of the stubble as a feeding ground and it can be made profitably abundant on many farms, but it must have winter foods and covers, and it must be protected from its enemies if any shooting is to be done; otherwise it will become extinct.

Dr. Judd says this grouse yields readily to domestication and says preserves for

domesticated birds should be established. He relies on Audubon's statement, that 'the pinnated grouse is easily tamed.' The recent experiments which have come to my notice have been failures; and since the birds now are very valuable, it seems peculiar that there are no published reports of successful hand-rearing. It is certain, however, that the birds can be made very abundant as the red grouse have been on the moors of Scotland. Practically all of the grouse bred in Scotland are wild birds. Few experiments in hand-rearing have been made and they are not necessary or desirable. As I have observed, wild bred birds are the cheapest and most easily and safely reared; evidently they are better for sport and better able to take care of themselves than hand-reared birds.

"Probably ninety per cent. of the farms where these birds occur are now posted against shooting and the number of farms so protected is increasing. There are hundreds of thousands of square miles where the grouse shooting can be made good as it is in Scotland, provided the farmers be dealt with fairly. A grouse preserve, properly conducted, will prove to be a money-maker. Since late in the year this grouse has a well-sustained flight and often will go a mile or more before alighting, the farm where any practical preserving is undertaken should be a big one, or the shooting on a number of farms should be under one management. Certainly no one will be damaged if such industry be encouraged on the farms which are now posted against all gunners or on the farms where the grouse have become extinct.

"Grouse shooting in Scotland is the grand opera of the world's shooting. Many thousands of sportsmen go to the moors every August to shoot the red grouse. The birds are bred wild and are shot for the most part by driving, when the birds are flushed and sent over the guns. So popular are the



moors that a vast throng is attracted. The president of an English railroad is reported to have said: 'The grouse pay our dividends.' Many sportsmen from the continent of Europe and many Americans go to Scotland on the 12th of August, when the season opens, and one season an English magazine stated that an American sportsman had the best dogs on the moors. Complaints have been heard about our countrymen because they are said to have raised the prices of the shooting rentals and to have taken some of the more desirable places from Englishmen who formerly rented them from year to year. Tons of grouse are shipped to the English markets; many thousands of these birds are sold and eaten in America; but the shooting remains good. There is no fear of extermination.

"The ornithologist, Elliot, in concluding his chapter on the American prairie grouse, which, as a sporting and food bird, is very similar to the red grouse of Scotland, says: 'But the inevitable day will surely come that will bring the same fate to all our wild creatures, and the prairie chicken, like other natives of the wilderness, will remain only as a memory.' We should take notice that 'the inevitable day' is almost here.

"The size of the impending catastrophe becomes evident when we observe that the area of Scotland which supplies the English markets with cheap grouse is only 30,405 square miles. Since there are some grouse in Northern England and parts of Ireland, it would be fair to say that the food-producing area is about 50,000 square miles. The combined area of the states where our grouse of the open country still occur (in sadly diminishing numbers) may be roughly estimated as 2,350,000 square miles. We have besides about 230,000 square miles in the States where the prairie grouse have become extinct, and in one of these states, Audubon says, they were so abundant as to be regarded as pests. They can be restored and made plentiful for sport and for a highly desirable food supply, provided the matter be attended to now.

"Grouse shooting has been prohibited in many states, and in no state can these birds be sold as food. It is evident, therefore, that it does not pay to look after them properly; to restore the prairie grass for nesting sites and cover, and to preserve the wild roses, sunflowers and other plants, which furnish protection and food and which have been destroyed thruout the range of the grouse in the interest

of agriculture. If only a small portion of the area suitable for grouse breeding be utilized for the profitable production of these birds they might be made more abundant than they ever were and all of the sportsmen in America and many from abroad might have shooting sufficiently good to feed the people with cheap grouse. All that is needed is a little encouragement for those who are willing to undertake the needed industry.

"The cost of breeding game in a wild state is small when compared with the cost of hand-rearing pheasants and other game bred in captivity. The wild nesting birds find most of their food in the fields. The grouse, like the quail, glean the stubbles after the harvest and they can subsist in large numbers, even in severe winters, on the hips of the wild rose and the seeds of sunflowers, sumacs and other plants. The farmers, whose farms are posted, often are quite willing to rent the shooting for a few cents per acre, and if skilled game keepers be employed to control the natural enemies of the birds and to see that they have proper nesting sites and foods the grouse can quickly be made profitable, and syndicates of sportsmen formed to share the expense of looking after them can have splendid shooting at very small cost. As I have observed, the sportsmen who are looking after the quail often pay only \$10 to \$15 each per year, and if they could sell some of their quail these amounts would be reduced.

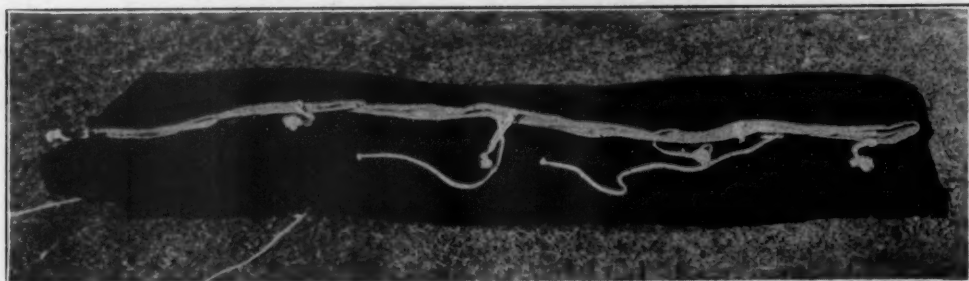
"Since it is very evident that as population increases the grouse shooting must be prohibited everywhere unless the birds be properly looked after, I sincerely hope it will not be long before grouse shooting is restored on many of the posted farms, from Louisiana and Texas to Michigan and North Dakota, by syndicates of sportsmen who are willing to deal fairly with the owners of the grouse lands and to persuade them to assist in making these splendid birds profitably plentiful as the red grouse are in Scotland. We should always remember that most of the farms are now posted against all shooting and that the farmers are supplementing this prohibition with laws prohibiting the taking of grouse at any time. There are good reasons why these conditions must remain and grow worse unless the grouse be preserved, in the interest of sport, on at least a part of the vast area they should inhabit."

### Appalachian Tent and Pack Sack.

The Appalachian Tent and Pack Sack is a one-man tent that can be laced up into a pack sack, that is sold by the New York

Sporting Goods Co. of No. 17 Warren Street, New York city.

As a one-man tent it measures 4 x 7 ft. on



Folded up.

the ground, 5 ft. high at the front, or entrance, end; and 2 ft. 6 in. high at the foot. In short, it is a wedge tent, lower by one-half at one end. It is wide enough for a single bed, and the roof slant being considerable, especially at the front end, makes it a good rain shed. The ground cloth is sewed in all around, and is of a heavy brown waterproofed material, but not canvas. The upper part of the tent is of a light weight, closely woven "balloon silk," waterproofed, as practically all such material is, by the paraffin process.

The front end of the tent is fastened with brass snap-buttons, and can be re-



Side view of tent.

moved entirely. A fly and mosquito-tight net is permanently sewed in the entrance, with a foot of floor net to tuck in closely. The netting cannot be removed. A window, net covered, with a cloth cover in case of a driving rain, is in the rear of the tent. Peg ropes are provided, and other necessary loops. The peg ropes are attached to the tent by means of metal rings, which may be an objection, as in time they may wear into the top part of the tent when rolled, and thus cause holes. No metal, but soft loops, would be better, such as of leather.

Like all light-weight, single-layer tents, this one is only rainproof, but not storm-proof. That is, a very severe driving storm will send water thru it.

Now pull your tent stakes and drop the tent down onto the 4 x 7-ft. floor cloth. Fold the floor cloth lengthways, thus leaving a strip of folded tent 2 x 7 ft. Now fold up the foot about one foot, and fold down the front of the tent about two feet. Thus we have the tent folded flat, now measuring 2 x 4 ft. And herein is where this tent differs from others. Folded thus, we find a row of brass rope holes along each side. Now place your duffle on this folded tent, in a pile two feet square; then fold over on top of the duffle the remaining two feet, and lace up each side. Thus you have the pack sack. An extra piece of cloth, waterproofed, about 1 x 2 ft., makes the flap for the pack. On the front of the pack are two bellows pockets, and on the back side are the usual shoulder straps of webbing, adjustable, and with snaps at the lower end. When the tent is pitched these straps and pockets are under the tent, of course. The whole affair, with proper ropes, weighs on scales between nine and ten pounds, empty and dry, but wet would weigh twelve pounds or over.

CHAUNCEY THOMAS.

### What Happens When Airedale and Porcupine Meet.

Editor Outdoor Life:—The accompanying photograph shows what happens—to the dog at least—when Airedale and porcupine meet. This dog, "Mack," that I had known from puppyhood, was owned by Mr. M. Z.

Durant of the U. S. Forest Service, and was to have taken the leading dog part in a bear hunt that Durant and I had arranged to take last autumn on the Idaho side of the Bitter Roots. Before my arrival at

Chamberlain Meadows on the Pot Mountain trail, where Durant was stationed at the time, the bear hunt was all off as far as Mack was concerned, he having met the porcupine that gave him the decorations shown in the photograph. Of course, the quill-bearer met his own fate at the same time.

After several days' work the owner of the dog managed to extract most of the quills, and then, being called away to a distant forest fire, he left Mack at the ranger station, where, soon afterward, the dog tackled another porcupine. His master being absent, and the dog being regarded as a fierce and rather dangerous one, little or no effort to extract the quills was made, so that their free ends were soon broken off or driven into the flesh by the dog in his efforts to relieve himself. When his owner returned it was too late to do anything for him. When I reached the station a few weeks afterward the Airedale was in a pitiable condition. The roof of his mouth, tongue, inside of cheeks, gullet, nose, head, neck and shoulders were filled with broken-off quills, each one of which was the center of a good-sized abscess and making its way further inward. But even in this plight, plucky Mack managed to limp out of camp, on three legs, behind his master and to kill a big badger that lacerated him severely about the head during the fight.

One would think that these two experiences would have taught almost any dog caution, but it was not so with this one. His owner has just written me that, the dog having gotten into fairly good shape



A bewhiskered and much-dejected Airedale.

after many weeks, he loaned him to some friends this winter for a cougar hunt, during which he encountered another porcupine and got so badly "quilled" that they had to, or did, kill him. No, caution is not a prominent element in the Airedale's mental makeup. But if there is anything that walks, crawls, swims or flies that has a stouter heart than an Airedale with a remote mastiff cross, such as was poor Mack, your friend "Senex" has never seen that creature. **SENEX.**

D. C.

### Tribute to a Dog.

Editor Outdoor Life:—Senator Vest of Missouri made the following plea as attorney on a dog case. Voluminous evidence was introduced to show that the defendant shot the dog in malice, while other evidence greatly refuted this claim. In making his plea, he arose, scanned the faces of the jurymen for a moment and said:

"Gentlemen of the Jury:—The best friend a man has in the world may turn against him and become his enemy. His son or daughter that he has reared with loving care may prove ungrateful. Those who are nearest and dearest to us; those whom we trust with our happiness and our good name, may become traitors to their faith. The money that a man has he may lose; it flies away from him, perhaps, when he needs it most. A man's reputation may be sacrificed in a moment of ill-considered action. The people who are prone to fall on their knees to do us honor when success

is with us may be the first to throw the stone of malice when failure settles its cloud upon our heads.

"The one absolutely unselfish friend that man can have in this selfish world; the one that never deserts him; the one that never proves ungrateful or treacherous, is his dog. A man's dog stands by him in prosperity and poverty, in health and in sickness. He will sleep on the cold ground where the wintry winds blow, and the snow drives fiercely, if only he may be near his master's side. He will kiss the hand that has no food to offer; he will lick the wounds and sores that come in encounter with the roughness of the world. He guards the sleep of his pauper master as if he were a prince. When all other friends desert, he remains. When riches take wings and reputation falls to pieces, he is as constant in his love as the sun in its journey thru the heavens.

"If fortune drives the master forth an outcast in the world, friendless and homeless, the faithful dog asks no higher privilege than that of accompanying him, to guard against danger, to fight against his enemies. And when the last scene of all comes, and death takes the master in its embrace, and his body is laid away in the

cold ground, no matter if all other friends pursue their way, there by the graveside will be found his dog, his head between his paws, his eyes sad, but open in alert watchfulness, faithful and true even in death."

The jury returned a verdict in favor of the plaintiff for a much greater sum than sued for.

ANTHONY LEWIS.

New York.

### Making Useful Wearing Articles From Game Skins.



The author carrying goat skins.

Editor Outdoor Life:—What use do you make of the skins you get? It seems to me as the useful articles should be cherished just as much as trophies, and usually the remainder of a skin that a trophy has been taken from can be put to good use. For this reason I wish to tell what I have done in this line:

Of course I realize that a great many of the boys are not prospectors, as I happen to be, but that's no excuse, as I find that the ladies are also fond of nice rugs, etc., and even tho the men are not living in a tent

or under a spruce tree, there still remains many useful things which can be made from these skins.

I have a robe made from mountain sheep skins, and it's an article which no one should sneer at if they want something warm. Of course, moose hides are a little too heavy for me to work up, as I am not equipped to tan anything so big as they are, but I use one for a mattress and another one for a rug, and they do good work, too. I've made up a number of hunting knives and have used moose horns for handles, and feel positive that nothing better can be found. The mountain goat skins, however, I find are more adaptable than any hoofed animal that I have ever seen. I've made my sleeping bag out of mountain goat skins, and I don't believe its equal can be bought in the market for less than \$50, if at all. I have also made from goat skins three pairs of mittens which no cold ever has penetrated. They are a very handy and comfortable article, especially when one is working on a gee-pole with the mercury 40 below, and it goes there quite often in this country. Then, last, but not least, after I had made the mountain goat skin mittens, a lady wished a muff made out of the same material, which I made up, and, with such success that I now find myself in grief because I have no more material.

I have no doubt that some might want a little light on the tanning subject, and in answer to this question I will say that there are so many good recipes to choose from that I hardly know which is best. I use the acid tan, but this is nothing to worry over, as one can get tanning done at very reasonable prices in almost any city.

Alaska.

J. H. FOSTER.

### Foot Bandages for Marching and Shooting.

Sir:—In reference to A. F. M.'s letter in your issue of Sept. 12, I may say that I have worn foot bandages for the past two years for marching and shooting, and I can testify to their excellence; after a long march one's feet are as clean as when one started, and they keep the feet cool. I have used those supplied by the Elgin Mills, Cawnpore, the most expensive, "Swansdown," being 5 annas a pair, and the ordinary quality, 3 annas 6 pice a pair. But excellent bandages can be made from ordinary flannelette. A square

piece of material, 20 in. by 20 in. or less, is required, and the method of putting them on is as follows:

Place the foot diagonally on the bandage, fold over the inside corner first, then pull up toe corner, after that the outside corner over those two, then finally the heel corner round the inside of the foot and over the outside corner; just hold while putting on the boot, which will then keep them in position.

The folds do not inconvenience the feet in

the slightest degree, and with bandages sore feet are, in my opinion, an impossibility. Bandages are far better than socks; they are cheaper, and last longer.

I have never used my bandages oiled, but no doubt they would be better so.

E. H. N., in a foreign exchange.  
Jamalpur.

Will some of our readers please try this method out and report on how it works.

Some men seem to make a success of such bandages, and some do not. The "sock question" is as important to the feet as is the shoe question, as the two in practice are really one. Some men use a long, narrow bandage instead of the square cloth, and seem to prefer it to the sock. I would be glad to hear from those who know from practical experience.

CHAUNCEY THOMAS.

### How to Guard Against Forest Fires.

Hot weather brings drouth, which causes brush and foliage to dry up so that they are easy prey for fire, even in the form of small sparks. In but a week or two of dry weather, sometimes damp, humid underbrush and groves are easily devoured by roaring, rushing destructive forest fires. Summer warns the woodsman of the approaching danger of fire and the government, eager to conserve the forests because of their immense value and the extraordinary, world-wide demand for all kinds of American woods, is coaching its foresters and the public at every opportunity as to how to co-operate to prevent the enormous losses of past years thru fire in private and public woodlands.

Here are some suggestions that seem particularly appropriate to refer to camping parties and those who will spend much of the coming four months outside of city walls:

1. Don't throw a match away until you are sure it is out.

2. Don't drop cigarettes or cigars until the glow is extinguished.

3. Don't knock out pipe ashes while hot or where they will fall into dry leaves or other inflammable material.

4. Don't build a camp fire any larger than is absolutely necessary.

5. Don't leave a fire until you are sure it is out.

6. Don't burn brush or refuse in or near the woods.

7. Don't be any more careless with fire in the woods than you are with fire in your own home.

8. Don't be idle when you discover a fire in the woods; if you can't put it out yourself, get help.

9. Don't forget that the smallest spark may start a conflagration.

Thousands of acres of forest and suburban woodland have been burned over already this spring by fires which started for the most part from preventable causes.



READ "GAME TRAILS OF THE CASSIAR," IN JULY NUMBER.

By Byron N. Hawks. Above cut shows the party as they were leaving the game fields. The story describes the trip of Mr. Hawks and companion taken last fall on which they secured three moose, six caribou, four sheep, three goats, and one grizzly bear, besides numerous ptarmigan, grouse, and an abundance of fish. It is a great story of the greatest game field on this continent.



## Rapid-Fire Revolver Shooting.

By Ad Topperwein.

Editor Outdoor Life:—Ever since reading the various articles in Outdoor Life by Messrs. Thomas and Haines on rapid-fire revolver shooting, which interested me very much, I have had a hankering to try out this burning up of ammunition in quick time myself and see how "pronto" a fellow could empty a modern revolver with fair accuracy. When I read of Mr. McCutchen's wonderful rapidity with the .38 S. & W. it surely got me to thinking that 4-5 of 1 second for five shots was going pretty fast; but in my many years in the shooting game, having tried out about every crazy stunt suggested, I have long ago come to the conclusion that there is a great deal more in shooting with rifle, shotgun or revolver than the makers of firearms had any idea of, having myself "discovered" quite a few "kinks" in various shooting irons which were not in the catalog and which, to my mind, would have looked mighty good in print. When some years ago a certain bunch of Kentucky pistol shooters startled the natives by shooting holes into a paper turkey at 300 yards, I read the comments in the various shooting journals and simply hiked out and shot up a few boxes of perfectly good Winchester cartridges and soon came to the conclusion that, altho the revolver was perhaps not intended for killing "things" at 300 yards, it was possible to secure a good many hits on a target at that distance, and some farther range too. To begin with, rapid-fire work with the revolver at stationary targets or any other shooting at still objects is not in my line, as all of my shooting is as a rule at something moving, and while I can get off a "bunch" of shots at an object or several objects thrown into the air, with the revolver, I have never thought of timing the shooting with a stop watch to see just how fast these shots were fired.

Chauncey Thomas in his article hit upon a subject which ought to interest a good many revolver shots who practice these so-called rapid-fire matches held under the auspices of the American Revolver Associa-

tion. To my way of thinking, these matches are really not "rapid-fire," too much time being allowed the shooter; and while I do not expect it to be understood that these matches should be pulled off in any such remarkable time as made by Mr. McCutchen or Chauncey Thomas, I do believe that there should be quicker time to deserve the name of "rapid-fire."

I do not mean in any way to make small the shooting of these shooters, as my hat is off to you gentlemen, to you, who make bull's-eyes no matter how much time you take to make them; but I think that this real rapid work under "hold-up" conditions is the most practical and may come in very useful some time to most any of us, and while we do not expect to make two-inch groups at this sort of shooting, it is the kind of work which may some time save your life in a pinch. It was this kind of shooting which made the names of all the famous gun fighters of the Old West, not so much accuracy, but speed, and while their speed was not anything compared with that of McCutchen, they were just fast enough to beat the other fellow. When speaking of the gun fighter of the Old West, it naturally suggests the pistol used by these men—the famous Colt .44 and .45, single-action—and as some of Messrs. McCutchen and Thomas' work was with these guns, I cannot help but say a few things about this particular model of six-gun—say what I reckon will not please some of you old timers—and while my remarks may not be at all complimentary, as I think the .44 or .45 Colt a mighty good gun, a good gun for the purpose it was intended for; but, believe me, for my style of shooting, it would be the last gun I would select. I never could get used to the long sweep of the hammer and several other things, and I think its great popularity came about thru its being the first good six-gun put on the market, and at such a time when every one used one; and I dare say, could all the bad men and the old gun fighters come back to this earth right now, a great many



of them would select some other weapon. To say that these single-action revolvers are as fast or faster than any other—which I have heard stated—is to my mind ridiculous. There are some men who can shoot pretty fast with the single-action .44 or .45, but these same men could shoot much faster with the double-acting revolver of either Smith & Wesson or Colt make.

Chauncey Thomas also mentions the .45 Colt automatic. This is another arm I could never fall in love with; personally, I do not like any pistol of the automatic type, and while I think they are excellent arms and perhaps easy to shoot for some people, there is something about them that always suggests something else, not a pistol. To my mind, the modern revolver is a beautiful thing, which I cannot say about the automatic. A great many persons buy these guns because the word "automatic" suggests speed, and while the smaller calibers may be pretty fast, the .45 with its weight and trigger pull is not as fast as the double-action revolver; and, after all, the automatic cannot be fired faster than the shooter can pull the trigger, and you can pull the trigger of your double-action just as fast and as a rule with less effort. I think so at least.

As I stated before, all this has been "bothering" me, and so to make a long story short, I "done went" and tried it out last week, and feel a heap better, and I want to say to those who read Chauncey Thomas' article and who think maybe that he was just "rambling along," that I have come to the conclusion that this man McCutchen is some "pronto" shooter and that I really think that he could, if he was pushed real hard, beat this record of his a fraction, altho I will admit that 4-5 of 1 second (think of it!) is about his limit; but I mean that he could "linger" around 4-5 and 1 second right along if he wanted to. Mr. McCutchen, as I understand, is a powerful man, with a large hand and a good grip, and a mighty good shot, all to his advantage for shooting fast. His large hand especially is a great advantage over a fellow with a small one, for instance, myself; for a long, lanky Texas steer I have rather a small "paw," and to make matters worse, the trigger finger of my right "claw hopper" is crippled with a touch of rheumatism, which does not help a fellow any. The revolvers used by me in trying out this quick shooting were:

- .38 S. & W. Special, target sights, 6½-in. barrel.
- .44 S. & W. Russian, target sights, 6½-in. barrel.
- .44 Colt Frontier, 5½-in. barrel.
- .380 Colt Automatic.

These guns were all "regular," just as the factory turns them out, average trigger pull, and the ammunition was all of full-

charge, smokeless loads of Winchester make, the target a piece of cardboard 12 x 20; distance, ten and fifteen yards.

Shots timed from report of first shot to last; stop watch with split seconds.

.38 S. & W., 6½-in. barrel, full charge Winchester smokeless; revolver used as double action; distance, 10 yds.

Time.	Hits.	Group.	Time.	Hits.	Group.
1½	5	7 in.	1½	4	6½ in.
1½	5	10 in.	1½	5	9 in.
1½	5	9 in.	1	3	5 in.
1½	5	9½ in.	1½	5	8½ in.
1½	5	8 in.	1	4	12 in.
1½	4	*3 in.	1½	3	10 in.
1½	5	7 in.	1	3	9½ in.

\*4 shots 3-inch group, low; 5th shot 8 inches lower, off target. †15 yards.

.44 Colt single action, 5½-inch barrel; full charge Winchester smokeless, soft point; distance, 10 yds.

Time.	Hits.	Time.	Hits.
3%	4	3%	4
3%	5	3	*5
3%	5	3	4
3%	4	3%	4
3%	4	3	3

\*Best group, 7 inches.

.44 S. & W. Russian model, 6½-inch barrel, single action; full charge Winchester smokeless ammunition; distance, 10 yds.

Time.	Hits.	Time.	Hits.
2%	4	2½	*5
2%	5	2½	3
2%	4	2%	5
2%	4		

\*Best group, 6¼ inches.

.380 Colt Automatic; Winchester ammunition; solid point; distance, 10 yds.

Time.	Hits.	Time.	Hits.
1½	5	1½	5
1½	5	1	4
1	5	1	*5
1	3		

\*Best group, 7¼ inches.

In all of the above shooting the guns all worked fine; there were no misfires; the only trouble I had was the fact that the timekeeper forgot to stop his watch twice while I was shooting the .44 single-action, but I do not think that either effort was better than the ones we recorded. I got some pretty good groups, especially so on the sixth trial with the .38 S. & W. I secured a group of exactly 3 in. for four shots, forming almost a perfect square, a little low on the target, the fifth shot going still lower into the ground about eight inches. This was by far the best group I secured and was, I suppose, a fluke, as none of the rest were nearly so good. I will say, however, that all the shots fired with all pistols would have struck a man's body, with the exception of one shot with the .44 single-action Colt in the last trial, when I only secured three hits, one of them two feet to the right of the target. The reason, perhaps, for this was that my hand by that

time was pretty well tired out, and I suppose I flinched.

Since making the above tests several things are clear to me: one that the .38 double-action revolver is a great deal faster than many people think, and that the fastest single-action pistol is the .44 S. & W. Russian—at least for me. That is, I think, easily explained when the shape of the hammer is taken into consideration. Of course, I suppose there are a great many shooters who can handle the .44 Colt a great deal faster than I can, as I have had little or no practice with this sort of arm and absolutely no previous practice at this rapid-fire business. I also think that by changing the shape of the hammer of the

.44 or .45 Colt and filing the mainspring down just so it is strong enough to explode the primer, a good deal faster time could be made. This plan would also work with the other weapons I used. There is also a chance for the timekeeper to be a fraction faster or slower, as the case may be. In an event where a fraction of a second counts, the decision of the man with the watch must be instantaneous; he must be exactly with the shooter's first shot and exactly with the report of his last one. However, by making a series of tests a very good idea can be gotten of the wonderful rapidity of the modern revolver in the hands of an expert.

Texas.

### Quick Work With Six-Gun.

By Ed McGivern.

Dear Mr. Thomas:—Your letter at hand, pressure of business not permitting answering it until now. Your letter is straight to the point. Thank you for that. I like it. When you are sure you are right, go ahead. I do, and I try to be right, always. I did not wish to infer that S. & W. goods were no good, but I will try to explain just what I did mean. If you remember our write-up in Outer's Book in December, 1913, you will see that all of our guns in the six-gun line were S. & W—.22s, .38s and .44 S. & W. Special.

As we developed more speed of fire we always had just the trouble you set forth in September issue of Outdoor Life in yours and Mr. McCutchen's tests. I read this with great pleasure, as it bore out my claims before I made them to you. Correspondence availed us nothing, so we tried out Colt's line—with the result that we adopted Colt guns entirely, after thoroly testing speed of operation and dependability under all conditions. I have several times since tried S. & W. goods, thinking to give them the benefit of the doubt, but never could get equal results from them. As for the forward alignment of the S. & W. cylinder pin, as you know, the cylinder turns backwards and away from the joint in frame, and without this forward alignment the gun would not work at all, or at best in a very erratic manner. This was the result we got, anyway, and our experience was identical with yours at extremely rapid fire.

I experienced none of this trouble with Colt's .38 O. M. I have three of these that I use for rapid fire and find them perfect, and have never tied one up yet, except once in my experience. I had a Colt .38 O. M. buck on rapid fire. This was remedied at the factory and never occurred again.

I have just finished a test or series of tests along rapid-fire lines of 7,380 cartridges, using 158-gr. bullet and  $3\frac{1}{2}$  grs. Bull's-eye powder—no cleaning, only 3-in-1 oil on joints and pin—all in one gun, a Colt's O. M.,  $7\frac{1}{2}$ -in. barrel. I had no misfires, no balks, no catch or drag, perfect functioning thruout.

The early part of the experiments were as follows: We used the Chamberlain Target Company's trap for throwing rifle ball targets (you no doubt have seen them?) and by adjusting the springs we arranged to throw a tomato can eighteen feet in the air by actual measurement, using a 2 x 2 pole marked off in feet, and stuck up in the ground for a guide. Standing nine feet from trap we started shooting at this can as it stopped before starting to descend, shooting to stop at shoulder height, and making an average descent of about thirteen feet, as I am 5 ft.  $4\frac{1}{2}$  in high.

I never put less than four bullets in it, and this only on two occasions, five out of six on about 20 per cent of the shots, and six hits on the other 80 per cent. At twelve feet the 80 per cent dropped off, and at fifteen feet it dropped a little more, and at twenty-five feet a little more. This used about 2,000 shells, or a little over.

Timing this was estimated by the time it took the can to fall thirteen to fifteen feet. You are able to judge this as well as we. [Between 1 and 2 seconds, probably.—C. T.]

I then started on three doubles,  $3\frac{1}{2}$ -in. targets, tossed in the air, using three throwers, each throwing two targets. After much experiment I found I could make better time on these by using one thrower, my regular assistant, he using both hands and throwing three with each hand. This cut the time shorter. I am going to time this

accurately with witnesses and send you full reports later.

I find blocks of wood, 2x2x2 to be the best targets for aerial shooting.

Now, as to that article on "Real Revolver Shooting," I would very much like to read it. Can you secure a copy for me? I would appreciate it very much. As regards the different parts of the game, I learned real or practical revolver shooting in Wyoming before the railroad came along, where they carried and used the real old man-getters. Getting fairly good with the six-guns, I tried out target work at twenty, fifty and seventy-five yards. This, however, grew tiresome, due to so much sameness. I then took up fancy work, aerial targets and sensational human-target stuff. Getting acquainted with a theatrical manager he induced us to try vaudeville, in which we got along nicely. We then tried Wild West and later general outdoor exhibitions. I like the latter best, as you are not cramped for room and can get more practical results.

I would like to meet Mr. McCutchen and yourself. I am sure I would enjoy it. I do not want to detract in any way from Mr. McCutchen's work, and I enjoy and appreciate the part you took in the tests, and wish you success for every effort, and I am quite sure absolute fairness will always be a part of anything you take part in.

As you say, Mr. McCutchen's work and mine are entirely different, altho each one is very interesting and requires a great deal of practice, skill and no doubt natural qualifications of some sort.

Your advice of one gun and one load is just right and leaves no room for argument. However, we are now using some twenty different styles of guns and loads and we do fairly good with all of them; but I have one .38 O. M. Colt that I pick for all shots where I am fretful for the successful out-

come, and I can do better with this gun than anything else I ever saw.

No doubt Mr. McCutchen's preference for the particular .38 S. & W. he uses came about in the same way, thru familiarity and confidence.

I would stake a great deal on my .38 O. M. Colt. I was a little surprised to hear of Mr. McCutchen's .38 S. & W. tying up, as I thought he was lucky enough to draw almost a perfect weapon, but my experience has been trouble under pressure of speed with all S. & W.s, even the .22.

The crowds that watch us shoot, and the remarks passed, seem to argue for quite a lot of very keen interest in this line of revolver shooting. We do not fake and challenge anybody to duplicate our stunts that does fake. This holds good always with us, and helps to make the game better, and quickly stops some of the noisy ones. With best regards to you and Mr. McCutchen and the other men in the game.

Montana.

Last Friday afternoon, McGivern, the Great Falls crack shot, put up some remarkable marksmanship at the State Fair. His best feat was cracking targets as he sped around the field in an automobile. McGivern used revolvers and solid ball cartridges. He finished a run of 52 2½-inch targets without a miss. This is the best score of the kind on record. Captain Hardy of Denver established a prior record of 50 targets at the Minnesota State Fair. McGivern has a record of six flying targets in 1½ seconds.—Great Falls (Mont.), Tribune, September 27, 1915.

Gun was .38 O. M. Colt; Peters midrange cartridges. Average more than fifteen shots per minute; used three revolvers and a boy to load them. Got Hardy's fifty-shot record from your magazine last summer.

E. Mc.

### Rapid-Fire Remarks.

By Chauncey Thomas, Champion Tin-Can Expert of the World.

It is often hard to draw the line between free advertising in the reading columns and valuable stuff supplied by men who are actually doing things. But the above two letters certainly contain material very much worth while, and both meet with my fullest approval. Mr. Topperwein represents the Winchester Arms Co. and Mr. McGivern is a professional revolver shot, and makes his living by giving public exhibitions with the revolver, but both men surely can shoot, and that is all that concerns us here. Their experience with the six-gun far exceeds that of most men, and it is actual experience we all want, not mere desk deductions and paper theories. That is why Mr. McCutchen

and I put the guns under a stop watch and why we used all the varieties of revolvers we could conveniently get our hands on.

I notice that the experience of Mr. McGivern and of Mr. Topperwein bears out the general conclusions Mr. McCutchen and I came to, as published some time ago in our tests of revolver rapid fire, namely, that the .38 revolver is the fastest hand weapon in the world, automatics not excepted. Not only is the .38 revolver the fastest hand weapon, but it is also the most accurate and in some ways the most reliable; and that it is from two to three times as fast as the .44 and .45 calibers. But of course what the big guns lack in speed they more

than make up in results on the living target. In a man mixup—in Mexico, for instance—I personally would take a .44 or a .45, be it Smith & Wesson, Colt or automatic. McCutchen, on the other hand, would stick to his .38 S. & W. Special, while, no doubt, McGivern would select that favorite .38 Colt of his. Every man for his own gun.

I am much pleased at one thing reported by Mr. Topperwein, however, and that is the showing made by the old drop-action .44 Russian S. & W. McCutchen and I did not have a chance to try out that fine old gun. In the old days in the Rockies it used to stick like molasses on me with black powder, but I understand from some of Haines' experiments, and from other reports, that today Bull's-eye powder in the short .44 Russian shell gives even better results, at least more power, than does the .44-40 or the .45 cartridge.

This smokeless-powder game has mixed me all up. No sooner do we arrive at a conclusion about certain cartridges under certain conditions than here comes a can of something new, something more powerful and cleaner, and we are all at sea again. Ten years ago who would have suggested that the .44 Russian might in time be loaded so as to outclass the .45 Colt cartridge? But such seems to be the fact today.

I can readily understand why the tip-up S. & W. model showed faster results in Mr. Topperwein's hand than did the single-action Colt. The hammer is smaller and quicker, both to cock and to fall on the primer, and the gun itself is heavier, so cocking is easier. His suggestion to weaken the mainspring of the single-action Colt is, of course, an old one, and is well enough for target shooting, but it will never do in actual outdoor work, where it is important that the gun goes off every time. And the big hammer of the single-action Colt, while slower than the small hammer of the single-action S. & W., is a far better hammer for cold fingers, or with which to operate a dirty, stuck-up, rusted or frozen gun.

Colonel Colt knew what he was doing when he made that model. He was planning a practical weapon, reliable under all adverse conditions, and no one to date has surpassed him. The single-action S. & W. was designed for deliberate target shooting, and it also today remains the best model of its kind. The Colt and the S. & W. side-swing, .38 models, which are practically alike, were designed to meet three conditions—rapid fire, target shooting and outdoor work—and as a necessary compromise this model also today remains the best to be had. It all depends on what you want to do with your gun. No one model or gun surpasses all the rest in all things.

As I have often said before, and Mr. McGivern bears me out in this, the S. & W. is

a finer-made weapon than the Colt, and is perhaps a shade more accurate for this very reason, but this very closeness of parts makes it a shade less reliable under adverse conditions on the long trail, such as dust, rust, ice in and on the gun, etc. Then the single-action Colt, with its big hammer and its larger bearings and looser joints, stands alone. It will shoot almost as well as ever, when all the other Colts and all the S. & W. revolvers and all the automatics have gone out of action. But the single-action Colt is not the fastest revolver. Any double-action revolver will beat it in speed of fire, and it is the slowest of all guns to reload. I have had to pound every empty shell out with a stick, and for this reason when I could find nothing to hammer with, I could not reload a gummed-up single-action Colt at all. But as long as it was loaded it would shoot, and that can be said of no other revolver I know of.

We will now (in my opinion, remember) run down the scale from hard, outdoor work to fine, all-round target shooting—thus: Single-action Colt, New Service Colt, .44 S. & W. in either the old tip-up or the new side-swing models (this for the large calibers), then the .38 Special Colt, then the .38 Special S. & W. The single-action Colt is the slowest and most reliable, the .38 S. & W. Special is the fastest and most accurate; all other sizes, makes and models are a compromise between these two extremes. This scale says nothing for nor against any particular gun or make; it all depends on the use for which it is intended, much as one would run a similar scale from a lumber wagon to a sulky, or from an ax to a razor. Those guns in between represent express wagons and buggies, or hatchets and pocket knives.

Fast shooting with a revolver, however, is more a matter of hand and recoil than of make of gun. The fastest of them all is, I fancy, the little Colt .22 automatic; but also the weakest in execution, of course. Here the recoil and trigger pull are almost nothing, so all one has to do is to hold on the target and squirt. It is getting back on the target and a heavy trigger pull that eats up time in this game. Functioning the gun is merely a by-product of these two main elements. It is the heavy trigger of the big automatics that make them slower than the .38 revolvers.

Of course herein we all of us are discussing holster guns only. Pocket guns are not included.

I now hereby issue a challenge to meet both Mr. Topperwein and Mr. McGivern in a match under any conditions they may desire, except that I hereby select tin cans set on a fence in a row for targets. McCutchen can come in, too, and Ashley

Haines, with that darned old Winchester of his; Burro Puncher and Chester, too. The more the merrier—and the better for the ammunition companies. I don't care; every

man to use his own weapon, of course. And I am not going to use a lumbering old .45 Colts, either. No, sir; I am going to use a hose.

### That Speed-of-Fire Proposition and the All-Around Rifle.

By C. L. Smith.

"How far will it shoot? How many times will it shoot? I know a feller who's got one will shoot mor'n a mile an' go clean thru you! Shoots fifteen times, too!" Say, did you ever hear anything like that? They hardly ever used to ask, "How fast will it shoot?" tho this would have been much more to the point. They ask it now, tho.

About once in so often, some gentleman whose pet rifle is not of the fastest type, gets up on his hind legs and howls that speed of fire is only a delusion and a snare. When, as a boy, I first began reading Forest and Stream, there was a red-hot argument going on between the single-shot and repeater factions, while Major Merrill and one or two more were still putting up a gallant fight for the muzzle loader. Working on a bag limit proposition of not more than one or two animals at a time and with no attempt to kill a large number from a band, I have often wondered what type of rifle would have given me the most clean kills, lost me the fewest chances and let the fewest wounded animals escape. The first rifle that I used, to any extent on big game, was a Pacific Ballard, a fine, accurate weapon, but very slow to load. I killed about as much game with it as with all my other rifles combined, because I used it for a number of years where game was very plenty; but I am sure that I missed more hurried second shots with it than with any gun I ever owned, simply because I had to spend the available time in loading rather than getting a proper aim. It seems to me that there is a great deal of confusion in the minds of many writers, between speed of loading and speed of fire. I can't remember that I ever wanted to fire five shots in two and a half seconds, but I have mighty often wanted a second or even a third or fourth shot, with as little loss of time and as little disturbance of aim as possible. Yes, and a fraction of a second made all the difference there is. Which would have done the best work, double barrel, repeater or auto-loader, if there had been such a thing? Other things being equal, I say the auto, beyond a doubt, yet I have never used or owned an auto-loader and have no idea of getting one, simply because they have certain disadvantages that I do not like, being as I am a crank. Still, with the big bag limit in mind, I never could de-

cide whether a magazine rifle or a double would have given me the best results. Plenty of times that quick second shot, with no motions to go thru and nothing to distract my attention from the game, would have been worth a lot, but plenty of times two shots were not enough. It is pretty hard to decide, but I have a notion that the double rifle would have had just a little the best of it. Did I ever own one? At somewhere around \$300! Do I look it? And they carry so badly in a saddle scabbard that I would not have bothered with one anyhow, I know that much by trying to carry a double shotgun.

Always we hear from the man who prefers a certain type of action, for other reasons than its slowness, that this same slowness is a positive advantage rather than a drawback. Just as Major Merrill argued thirty-odd years ago, so argue some of the gentlemen of today. A man may stampede himself with a modern auto, so that he can't hit a flock of barns, and this same man, given a muzzle-loader, would just as surely break his ramrod, or shoot it away, or forget to put on the cap. I don't use the fastest gun, for reasons that are perfectly satisfactory to me, but I don't try to delude myself into believing that the loss of speed in loading is not a disadvantage. Other things being equal, which they seldom are, speed of loading is a great advantage, but, like other things, it may come too high.

About that all-round rifle: "There ain't no such animal." I know that well enough and it is all in the point of view which comes the nearest to it. If I could have but one rifle for big game, what would it be? With but little chance for anything bigger than deer or black bear, it would be a Savage .303 or .250. The latter, if it is as good as I believe it is. Given a good chance for elk, moose, or big bears, as well as deer, I would choose a .30-40 Winchester carbine. Cut out the deer and I would take the same gun, but for the .06 cartridge, or maybe I would take the rifle model, to give a little less recoil. With an equal chance for all American game it would be the .30-40, sure, to my mind, the nearest to an all-round cartridge that we have, if you count in the probability of bigger game than deer. All these cartridges give excellent results with reduced loads and a rifle

must do that if it is to make me happy. But when all is said, if I did not consider reloading, or looks, or prejudice, but merely chose the rifle that I believed would be the most efficient in securing me my game, under existing American conditions, I should take the Remington .35 auto-loader, a rifle I never owned and never expect to

own. Sounds funny, doesn't it? Well, a lot of us are funny!

P. S. If, in view of my valuable contributions to *Outdoor Life*, the readers thereof should be moved to present me with a double rifle, say a Holland .256, or whatever size they grow, I believe I could find a way to carry it.

Utah.

### Reduced Charges in High-Power Rifles.

By Chas. Newton.

This is a subject which does not receive the attention it deserves. There is seldom a trip on which high-power rifles are used that we do not at times feel the need of a .22 rim-fire. The high-power rifle may, in most instances, be made to serve equally well, provided we have, and understand using, suitable reduced charges. Grouse, ptarmigan, rabbits, ducks, geese and other varieties of small game are frequently found where the big game grows, and furnish a welcome change of diet. The high velocity rifles, even when used with full metal-cased bullets, will eat as well as kill the small game, in addition to making a tremendous racket, which is not always desirable. The remedy is found in the reduced charge.

Reduced charges may be primarily divided into two classes—those consisting of low-power cartridges used with adapters, and those made by reloading fired shells with a light load. We will discuss them separately, and in the order stated.

The adapters again divide themselves into two classes—those consisting of a mere bushing, into the head of which a center-fire revolver cartridge is inserted, and in which the primer is struck directly by the firing pin, the bullet traveling the length of the bushing before entering the rifling; and those in which the cartridge is seated inside the adapter, near or at its forward end, and exploded by a supplementary firing pin running back to the bolt face and struck by the firing pin proper.

With those adapters which are a mere bushing, with the cartridge inserted next the bolt face, a certain degree of accuracy may be obtained, but nothing comparable to that of a good .22 rim-fire rifle. The long travel of the bullet in the bushing permits it to obtain too high a velocity before it takes the rifling for the best results. The bore of the bushing, too, is seldom as smoothly polished as the interior of a barrel, fouls badly, and is not always exactly concentric with the bore of the rifle. However, these may be used for shooting grouse or rabbits thru the body at short

ranges, and they are far better than nothing.

Those adapters which place the cartridge close to the rifling show better accuracy. They, likewise, are of two classes—those which seat the shell of the cartridge directly in the neck of the chamber of the rifle, and those which seat it slightly back from the neck, inside the adapter. The former class give very accurate results when the dimensions of chamber, bore, length of revolver shell and diameter of revolver bullet give a good fit. The latter class give results about proportioned to the distance the bullet has to travel in the adapter before reaching the rifling; the farther it travels the poorer the results. As samples of this type we have the adapters used in the Springfield army rifle, in which a .22 short cartridge is seated with the bullet about one-half inch from the front end of the adapter, and the Marble adapter for the .22 Savage high-power, in which a .22 long rifle cartridge is seated quite close to the front end.

The ideal adapter is one in which the rim-fire cartridge is so seated that the lip of the cartridge shell is flush with the front end of the adapter. This type of adapter involves as a necessary condition that the ammunition used in the old type of outside lubricated cartridge in which the bullet diameter is the same as that of the outside of the shell; otherwise there is no room between the walls of the chamber and the shell of the cartridge for the walls of the adapter.

We know of one marketing adapters of the type last above described, altho we have made up some experimental ones which did very accurate work, and some may be placed on the market in the future. For .30 caliber rifles, either rim or center fire .32 long or short cartridges can be used. For the .22 Newton rifles the .22 long rifle cartridge works finely.

The use of either class of adapters which seat the cartridge used near the muzzle tend to injure the firing pin, since this should never be too hard at the end lest it crystallize and break, and if not hard it

batters and upsets, giving a sharp edge which pierces the primer, cutting it thru like a punch. A separate firing pin should be kept for use with these adapters.

By far the most satisfactory reduced power cartridge for use in a high-power rifle is one made by reloading the fired shells with suitable bullets and powder charges. By this means one may obtain almost any result desired, as to velocity, power or tearing qualities. The accuracy obtainable is equal to that of a low-power target rifle, the ammunition handles exactly like the full charges, and there are no adapters to bother with and get lost or foul up.

Again the reloaded low-power charges divide themselves into three classes—those which use metal-cased bullets, those which use cast bullets, and the compromise between the two, those which use a metal gas check on the base of a cast bullet.

The best results may be obtained by reloading with light metal-cased bullets. For the .22 high powers the Savage 70-grain full metal-jacketed bullet is admirable. For the .25 calibers we have the 87-grain bullets for the .25-20 H. V. cartridges, in both full metal jackets and with soft points, also the 101-grain full metal jacketed spitzer used in the Remington auto-loading rifle. For the .256 Newton and the different 6.5 mm. cartridges there is a 100-grain full metal cased spitzer. For the .30 caliber cartridges the metal-jacketed bullets, either in soft point or full jacket, adapted to the .32-20 H. V. cartridges, and weighing from 100 to 115 grains do very nicely. For the .35 calibers the metal-jacketed bullets for the Colt .38 automatic pistol work nicely; also the 187-grain pointed bullets furnished for the .35 Remington auto-loader.

These bullets may be loaded to give any velocity desired, from that of the slowest revolver cartridge up to decidedly beyond that of the full charge. It is impractical to give either the weights of the charges or the grade of the powder to be used, with definiteness, since the requirements of the individual sportsmen vary so much. This rule, however, should be borne in mind:

The lower the velocity desired the quicker burning the powder to be used. Also the lighter the bullet the quicker the powder. This is because the pressure must be kept low, and the slower burning powders will not burn completely because of the low temperature, due to the low pressure.

For the lowest velocities use very little Bullseye or Infallible shotgun powder. The charge will seem like but a pinch in the bottom of the shell. If velocities of 2,400 to 2,000 f. s. are desired Sharpshooter should be used. In going above 2,000 f. s. use Lightning powder.

As to quantities to be used, test the loads out on some object similar to that upon which they are intended to be used, and note if the tearing power, trajectory, etc., are satisfactory. Then, by varying the loading the desired results may be obtained. The quantity of any of these powders except Lightning, to be used should never be sufficient to fill the shell over one-quarter full—more may be dangerous.

Properly loaded, this type of low-power ammunition makes the most convenient and accurate reduced charges in use. There is no danger of leading or otherwise fouling the rifle; it is always ready to throw out the light load and take a full charge and use it with the best effect; there is no trouble in determining the proper temper of the metal, kind of lubricant, and the dozen and one other things which enter into the proper and successful use of cast bullets, and the problem is more free from trouble than with any other type.

The next best form of bullet for reloading with reduced charges is the gas check type. These are cast bullets, upon the base of which is affixed a copper cap which protects the base from being melted by the heat of the powder gases while the bullet is driven along the bore; it also assists in preventing stripping when the pressures go somewhat high. This type of bullet may be used successfully with sufficient pressure to give a 175-grain .30-caliber bullet a velocity of 1,800 f. s. The gas checks as well as the bullet moulds, and bullet metal, are furnished by the Marlin Arms Corporation, of New Haven, Conn., who are the successors of the Ideal Mfg. Co.

The bullets should be well hardened by the admixture of tin, antimony, type metal, or some other alloy which will stiffen it up well. About one part tin to ten of lead gives a very good temper. The bullets must be well lubricated and the barrel kept free from lead. This requires close watching if the higher pressures are employed. The bullets used should be about .002 inch to .003 inch larger in diameter than the bore of the rifle across the bottoms of the grooves, to prevent the escape of gas past the bullet, since these tempered bullets do not upset at the velocities at which they are used. A good lubricant is the Ideal Banana Lubricant, or a mixture of ozocerite and vaseline in such proportions as will give the required consistency. We prefer the latter mixture, as it is absolutely neutral, is not affected by chemicals, and will keep indefinitely without either becoming hard or rancid.

Using plain-cast bullets we may obtain velocities up to about 1,400 feet per second with considerable success. The bullets should be tempered, as above stated for the gas check bullets, also should be over

size to the same extent. Care should be taken to obtain a full, smooth bullet which completely filled the mould, and the base should have clean, sharp corners, and should be absolutely square. Great care should be taken that the base does not become nicked or deformed in any way, as it is the base which guides the bullet, and if it be out of true accuracy will suffer.

These bullets should be well lubricated. Moulds for a great variety of bullets suitable for this purpose may be obtained from the Marlin Company above mentioned, also full instructions for their use. They run from a round ball up to nearly the normal weight for the full load. In seating the round ball it should be pressed down into the mouth of the shell until its front end is flush with the lip of the shell, and the corner between it and the shell filled with melted lubricant. For indoor work and extremely short ranges outdoors such loads shoot very accurately and are almost noiseless. Of course very light charges of Bulls-eye powder should be used.

Never use black powder for reduced loads of any kind. It will not burn properly when loaded loose in the shell, and fouls terribly. Use a quick-burning smokeless powder in small charges.

Load the powder loose in the shell, without wadding or filling of any kind. It will burn properly.

Use the dense powders, unless you intend to use the shells very soon, as it keeps much better than the bulk powders, particularly if loaded in shells which have not been cleaned since using.

It is unnecessary to clean the shells after using, in case dense powders are used.

Do not resize the necks of the shells when using cast bullets. Use a bullet large enough to fit the expanded neck of the shell tightly.

In case very light loads are used always clean the rifle with stronger ammonia or some other powerful alkali, as where the powder gases generated are small in amount the gas generated by the primer may not mingle with the powder gases to an extent sufficient to cause them to be removed from the barrel with the powder gases. The smokeless powder primers contain a very large charge of fulminate, and this generates a very acrid gas, the residue of which is not removed by ordinary cleaning methods, and in case it remains in the barrel will attack and rust it. Where the charges of powder used are large enough this gas is mingled with the powder gases and carried out with them, but with very light loads this does not happen.

Remember that it is seldom that a rifle shoots reduced loads correctly to the same sighting as for the full charge. This is due

not only to the lower velocity not carrying the bullets up as well as does the full charge, but to the vibration of the barrel starting it on a different line of flight. We have used a .30-30 repeater which shot a foot below the normal sight line at 100 yards when using a 150-grain bullet at 1,200 f. s.; also a .30-40 rifle which with a 100-grain bullet and the lightest powder charge which would shoot at all, shot so much above the sight line for the full charge that we could not depress the rear sight enough to get upon the target. These were individual variations, particular to those rifles, and were due to the difference in vibration of the barrel when full power and reduced charges were used. Always test out your charge and determine where your rifle shoots with it.

Reduced charges usually shoot to one side, as well as to a different elevation. When the full charge is fired, the pressure of the bullet against the lands as it takes up its rotation tends to twist the barrel as it passes along. This twisting tends to throw the bullet to the side. It is a constant and when we have sighted our rifles to compensate for it, we find they shoot consistently where the sights indicate they should, so we do not know, or notice, that they shoot to one side. When we use reduced loads the twisting of the barrel is less, the shooting to the side is less, and we find we have a different point of impact and must allow for it in our sighting. We may make just as good groups, but in a different place. The reduced charges shoot more nearly where the bore of the rifle points when we pull the trigger.

The vertical variations, due to the flip and jump of the vibration of the barrel, and the side variations, due to the difference in the twisting of the barrel by the bullet as it passes out, differ in different rifles of the same kind, and also differ in the different kind of rifles.

A heavy barrel shoots both full and reduced charges more nearly to the same point than does a lighter barrel, because it is stiffer and resists better the vibration and twisting to which it is subjected.

A takedown rifle of the type in which the barrel unscrews from the receiver is more affected by the change in power of the ammunition than is one the barrel of which is screwed solidly into the receiver.

A rifle with a one-piece stock, like the Mauser, Springfield, Ross, Mannlicher or Newton, is affected less than is one with a two-piece stock, like our American lever action sporting rifles, as the wood of the stock passes the receiver and engages the barrel and tends to muffle the vibration and distribute it along the entire length of the rifle, instead of letting it confine itself to the barrel alone.



By attention to the above points, supplemented by careful observation and experiment, one may obtain good results with

reduced charges in high-power sporting rifles.

New York.

### Mr. Temple Replies to Mr. Newton.

Editor Outdoor Life:—Mr. Newton's whole mental system must be permeated with high velocity, to judge from the rapid and inaccurate way in which he read or interpreted my remarks on high-power rifles. His reading of it, and my statement, are both printed on the same column, and can speak for themselves.

Perish the thought that such remarks should fit my old Ballard that slept with me inside my blankets at many a lone and storm-beaten mountain camp, where gray wolves howled and silver-tips and cougars lurked in the shadows of the crags, while even more dangerous biped enemies had to be guarded against; that kept the house in fresh meat for years, and often put money in my purse. That I confess frankly that I couldn't hit a house with it at 200 yards? Not on your life! With one or two sighting shots as a preliminary, the palm of a man's hand extended from behind the 200-yard butt wouldn't have been of much use to its owner after the Ballard had cracked four or five times.

Like most hunting rifles for a timbered country it was sighted for a point-blank range of seventy-five yards. At greater or less distances I drew coarse or fine, and even in extreme cases held over or under as well. A fairly good hunter could generally get within much less than 100 yards of his game, and it was considered "plumb foolishness" to risk wasting both lead and powder at 200-yard ranges (of 36 inches to the yard) when it was so easy to get them closer.

The idea that I wished to convey to the readers of Outdoor Life was that I often sighed for a rifle that would have a practically flat trajectory for 200 yards, that would obviate any necessity of drawing either coarse or fine, and that if it would do that, it didn't matter "two whoops" to me whether at a longer distance its accuracy was so impaired that it wouldn't hit a flock of barns.

Probably no sportsman appreciates more thoroly and heartily than the writer the wonderful results that Mr. Newton and his fellow-workers have accomplished in, as it were, laughing at the laws of gravitation where they interfere with the low trajectory of a rifle ball.

A hunter who is unable to hit his game with any one of the several cartridges that Mr. Newton has been working on had better get a shotgun and turn his attention to small game at point-blank ranges; but, "honest injun," the meat-spoiling, mangling and

explosive effects of these new-fashioned bullets "get my goat."

By a careful and scientific study of the proper alloys of lead, copper and tin, can not a bullet be made that, while having the weight and shape, will have a different texture of metal, that batters up or mushrooms sufficiently so that at ranges of from fifty to three hundred yards the ball will not explode and go to pieces, but stay in the quarry's body, and so give the full effect in nerve shock of its 2,000 pounds, or more, blow?

Anyhow, I'm all for the low trajectory rifle, but in deadly opposition to the flying hamburger steak factories that it propels thru the atmosphere.

Mr. Newton says: "There are but few sportsmen who can shoot the heads off flying birds with light modern rifles, and those who can turn the trick with an old-style ten-pound rifle are getting fewer and fewer, at least those who can be called on to demonstrate." That is a solar plexus blow, and I wonder if he chuckled as much when he wrote it as I did when I read it.

I was born in '55, and after a short course in woodchuck hunting in dear old Central New York, hied me to the wild and woolly Far West, where then, as now, the game was rapidly disappearing, but there was still lots of it left, and there was no lack of flying live targets to practice on; nevertheless, I doubt whether more than one-tenth of 1 per cent of the thousands of shots that I fired at standing, running and flying game were shots that "headed" birds on the wing.

But I have done the trick successfully often enough to be sure that they were not altogether lucky "flukes," and more than once did it in the presence of witnesses, tho usually I did these stunts when all alone by myself in the silent places.

Can I do it now? No, you bet I can't. A four-inch bull at 100 yards looks very small to me now-a-days, and as for wing shooting, I am more than satisfied if with 1½ ozs. of No. 7½ chilled, I can hit three out of five "in de tail, in de wing or in de haid," as the old nigger expressed it.

In conclusion, I hope that Mr. Newton will realize that "the man who sold the meat" had a hundred opportunities where the sportsman of today has but one to become acquainted with the game in its haunts and prove out his theories by practice and observation in regard to bullets, explosive or otherwise, large bores vs. small bores, etc., etc., and made his experiments on live game; not being reduced to the dire neces-

sity of some modern experimenters who I've been told try out their loads for penetration and expansion and other qualities on a quar-

ter of bull beef purchased at the slaughter house.

A. D. TEMPLE.

Mexico.

### The 28-Gauge.

Editor Outdoor Life:—Having just read Dr. Robert H. MacNair's letter on "The Small-Bore Shotgun," I thought that perhaps my own experience might be interesting to him and others who have taken to the small-bore. In 1904 I purchased a Parker 28-gauge. It was the least expensive model the Parker people made at that time, and as near as I can remember it was what was known as a \$50 grade. I was led to try this gun by seeing a shot made with it on duck that would have been a credit to a 12-gauge. Another thing which influenced me was that I was an enthusiastic rifle shot and believed that the use of a 12-gauge gun was ruining my holding.

It was months before I succeeded in hitting anything with my new gun. Gradually I learned to use it and finally I used no other gun. My first experience with it was on willow grouse and prairie chickens, as I was then in Montana. I never had any luck with factory-loaded shells and equipped myself with some Ideal loading tools. I experimented with all sorts of variations of load at different distances on a 30-inch target and kept careful data on results. I finally found the load that the little gun would handle to the best advantage. The normal load for this gauge is  $1\frac{1}{4}$  drams of bulk powder and  $\frac{1}{8}$  of an ounce of shot. This load in my gun did not burn all the powder. I therefore decreased the powder load and increased the shot load till there was no unburnt powder left in the barrel. The load that finally gave me my best result was a scant  $1\frac{1}{4}$  drams of E. C. or New Schultze powder and  $\frac{1}{8}$  of an ounce of No. 8 or No. 9 chilled shot. I may say that I was cautioned when I bought the gun not to use any shot larger than No. 8, nor any shot except chilled. I have almost strictly adhered to this, tho I have used on occasion No.  $7\frac{1}{2}$  chilled. I have seldom varied from this load and have gotten the very best results. I found that the secret of success with this little gun is careful, close holding and learning to judge both distance and speed of your target.

In 1906 I went to the Philippines and took the gun with me, as well as a full supply of empty shells and material for loading. Altho there is a great variety of small game in the Philippines, the best sport is furnished by ducks and jack snipe. The latter are positively in millions in certain localities. It took me some time to function a jack snipe, but finally I became expert. I was in the islands five years and I would be afraid to say how many rounds I fired

from the little gun. I reloaded my shells and used them the second time before discarding them. On one occasion a gentleman, who had come to my station to shoot, expressed surprise that anyone would waste time with so small a gun as my .28. He was carrying a Parker .12 almost identical in model to my gun. One afternoon we started out together and he backed me to shoot against him, the match to be determined by the first missed bird. He broke on his tenth bird while I held up till my fifteenth. Of course, this is no test of the two guns, but it goes to show that, to the man who knows his gun, there is just as much chance for a bag with the small-bore as with the larger gun.

While in the islands, I shot a great many ducks. Ducks there are no different a proposition than in this country, if you do your shooting on the wing as any sportsman should. The last shot I fired with the little gun in the islands was on a large gray duck sometimes known as the Philippine mallard. I had seen two of these ducks alight in an extensive snipe marsh and had misjudged the spot on account of the distance and the rain which was falling at the time. The result was that I went by the pool they were on and they got up to my right and rear. They were fully forty yards away, but I dropped the leading bird and should have dropped the other, but was too sure and missed him. He circled fully a mile away from me and then came in, high up, against the wind. I watched him carefully as he came in and decided it was useless to shoot. I could not see his eyes as he came over me, but as the rain was increasing and I knew I would have to stop shooting, I decided to fire a parting shot and go home. I missed him and he turned and started down the wind like a shot. In a spirit of recklessness, I held what appeared to be twenty feet in front of the speeding bird, carried as he was by the force of the wind and his own flight, and he crumpled and dropped like a stone. I stood perfectly still and watched until he hit the springy marsh and bounded at least four feet in the air. Then, keeping my eye on the spot, I stepped with my ordinary walking step to where he lay. It was 125 of my steps or about 102 yards. I estimated that, when he was hit, he was at least sixty-five yards in a straight line from me, making due allowance for his drift with the wind and his own flight momentum. I afterward found that he had

been hit with a single pellet thru the neck. A chance shot, to be sure, but it would have been a chance shot for any gun.

This little gun has given me nearly twelve years' excellent service and has seen hard service. There is no harder climate on guns than the Philippine Islands. They will rust in your hands while hunting. I have never used anything on this gun but "3 in 1" oil. In the tropics I used this liberally. The barrels today are as bright and clear on the inside as they were when they came from the factory. Five minutes' work with "3 in 1" immediately on returning from the field is responsible for this.

I have one objection to the gun as I have to all Parkers and that is the complicated breech mechanism. It is the most complicated gun on the market. If any little thing goes wrong with your Parker, it is almost always a case of sending it back to the factory. My gun developed something which prevented it from breaking. Sometimes it would, and sometimes it wouldn't. On my return from the islands in 1911 I sent it to the factory and had it returned to me guaranteed in perfect order and tested. It was worse than before. It wouldn't open at all. I took it to a repair shop and had it improved somewhat, and got along with it. This year I found a gentleman who had owned many high-priced guns, including Parkers, and he agreed to take it apart for me and look it over. He did so, and found a small screw which had worked loose, tightened it and the gun has given

no trouble since. However, were I to buy another small bore gun, I would buy a Parker for just one feature, and that is the strength of the breech. The Parker breech is a solid block.

While I habitually use the 2 $\frac{5}{8}$ -inch shell, I must acknowledge a preference for the 2 $\frac{3}{8}$ , and get it whenever I can.

I believe that if our game laws would limit the gauge of guns that may be used for sporting purposes to 20-gauge, it would have more effect in preserving game than many of the daily violated laws we now have. It is hard to prove that a man is going to, or has violated the laws now existing, but anyone can prove the gauge of gun found in the hands of a hunter. Such a law would also improve our marksmanship, for believe me, one earns every bird he gets with the small bore gun. Let the larger gauges be used for trap work only, but keep them out of the field.

Very few people take the trouble to target a gun. They buy it and take it into the field without knowing its little personal equation. In targeting my .28 while testing for the proper load, I found that both barrels placed the bulk of the pattern in the left half of the 30-inch circle. This gave me a tip, and thereafter I led my right quartering birds more and my left quarterers less. It netted me more jacksnipe. It pays to learn your gun in the back yard. They all have their individuality.

J. N. MUNRO, Capt. Q. M. C.

Oklahoma.

### A Better Position for Lyman Peep.

Having secured one of the new Remington .22 automatic rifles and spent several days in honing off the rough edges of the mechanism, and easing up the trigger pull, eliminating the creep, etc., the next question was to secure the proper Lyman rear peep sight for the arm. The sight as furnished by the makers is almost worse than no peep at all. The dotted ink lines on the photo show the approximate position where the standard Lyman rear sight must be mounted on the tang. I have perhaps overdrawn its rearward position a trifle, but the fact remains that the sight is placed altogether too far back on the tang, so much so that the average sized hand cannot reach the trigger and properly grasp the grip at all, it being about as comfortable to place the thumb ahead of the sight as it is to the rear of the sight-base. In order to secure a comfortable grip I cut off the forward extending part of the base, which ordinarily accommodates the front base-screw, and after removing the sleeve and upper mechanism of the sight, drilled a new hole thru the base at the front end of the



The dotted lines suggest new position for sight.

channel milled in the base to allow the sleeve-ring to revolve; there is very little metal in the base at this point, and the screw used had to have its head thinned down about one-half the height of standard screws; the rear screw was fastened thru the regular rear hole drilled in the sight-base. After considerable filing of the bottom of the base at its front end, I obtained a fit which was solid enough for all practical purposes, and which left the hand quite free and uncramped when the finger was properly placed on the trigger, and the thumb was naturally curled around the grip.

Now, there is no reason whatsoever why the manufacturers should not furnish a correctly placed sight for this .22 Remington auto; it is not a compromising problem like the placing of a receiver sight on a Mannlicher or Mauser, but only needs a base having no extension forward and double the present length of the rear extension of the

base; the tang of this rifle is of ample length so two screws suitably spaced for rigidity can be nicely accommodated, and the sight will then be well out of the way of the shooter's hand and practically as strongly secured as the present badly positioned model. There is really only one possible objection to the position of the sight when placed forward against the curve of the receiver as shown in the photograph; this objection is, that when so placed the line of sight is raised about one-eighth of an inch, and this requires a new and higher front sight. Inasmuch as the line of sight on this .22 auto is in the same class as the height of sight on the large caliber Remington trombone, being rather too near to the top of the receiver for clearest vision, the necessity for a higher front sight will not be as great an objection as the all but impossible use of the present design of this rear Lyman.

FRANK M. WOODS.

California.

### Regarding the New Bullet Forms.

Editor Outdoor Life:—Referring to an article on page 489, November Outdoor Life, said article being signed Wm. Haws, Alberta, I will just have to come back at Mr. Haws and will start well toward the beginning of his answer.

There has been adopted by one large and one small nation two special bullets, and while they may be said to be of the same type, still they are not of the same exact form. These bullets were designed for the same purpose that Mr. Haws proposed his special bullet: to do away with the vacuum at the base and support the bullet by the wave lines, as it were. The one bullet which was designed by a Frenchman and is now in use in the French army, is a most peculiar bullet in that unless it is made far more carefully than bullets are generally made it has no accuracy at all. The second bullet, made and in use by the Swiss, is the same design as the 150-grain Springfield excepting that it is smaller in diameter, being 7mm, while the .30 Springfield is 7.62mm, and in that the base is tapered with a flat taper, not a segment of a circle as in the French style.

The Swiss bullet is a very accurate bullet, and yet, to use the words of a man who has shot all three over the same range, "There ain't any of them in it with the .30 Springfield."

Some years ago Mr. Thomas of the U. M. C. Co. designed a bullet to be used in the Krag. It is far more pointed than the Springfield and instead of having the point a true segment of a circle it is a cone pure and simple. This bullet was at one time loaded and put on the market to be used in the Krag and the .30-40 Winchester. I do

not know that it is put out today, but it did not prove to be as accurate as the Springfield bullet. Still it was built more on the lines of what my reading of Mr. Haws' article seems to designate.

There always has been and always will be a vacuum at the base of a bullet when in flight, but how large or how small it is cannot be answered, neither can any one tell just what effect it has on the flight of the bullet. But for some reason or other the old flatface bullet seems to have the best of all others, specials included, when it comes to close target work.

Now as to the length of barrels, and as Mr. Haws has quoted "cannon," let me quote an article, or rather a sentence of an article, in a government report, and I can't give the name, number or identification of that report either, nor do I know that my words are the same as those used there, but this is the sense of it:

"The full efficiency of the powder gases and the maximum velocity and accuracy of a projectile can be obtained in a breach-loading cannon of 50 calibers length," and I think it states prior to the sentence: "All military experts agree that"; and then the article states that at present it is not feasible to use guns of fifty calibers length on account of the great length of the gun.

Nelson's Encyclopedia gives as follows, speaking of nitro-cellulose powders: "To get full advantage of the new slow-burning powders guns were lengthened until about 50 calibers was reached . . . The temperature of combustion and height of maximum pressure being the most important factors in producing erosion, attempts were made to reduce them." The most effective

method was to reduce the powder charge till the maximum pressure was less than sixteen tons and to preserve the power of the gun by increasing the caliber of the gun, shortening it to 45 calibers in length. It also gives the following table arranged to suit myself:

Caliber...	LENGTH OF BORE IN CALIBERS.							
	U. S.	Gt. Britain	France	Germany	Italy	Russia	Japan	Austria
16	35	—	—	—	—	—	—	—
15	—	45	—	45	45	—	—	—
14	45	—	—	—	—	—	45	45
13.5	—	45	—	—	—	—	—	—
13.38	—	—	45	—	—	—	—	—
12	50	50	50	50	46	50	50	45
11.2	—	1	—	50	—	—	—	—
10.8	—	—	45	—	—	—	—	—
10	40	45	—	—	45	50	50	—
9.45	—	—	50	40	—	—	—	45
9.2	—	50	—	—	—	—	—	—
8.26	—	—	—	45	—	—	—	—
8	45	—	—	—	45	50	45	—
7.63	—	—	45	—	—	—	—	—

In his book on "Guns and Gunnery," Bruff gives for United States Land Service:

Cal.	Field Artillery.			Siege Artillery.		
	Lt.	Hvy.	Mortar.	Gun.	Howtzer.	Mortar.
3.2	25.20	—	—	—	—	—
3.6	—	33.50	—	—	—	—
3.6	—	—	5.19	—	—	—
5	—	—	—	27.0	—	—
7	—	—	—	—	12.67	—
7	—	—	—	—	—	7.0

Not being able to obtain at present or having on hand data for late designs of guns of land service, I will have to rely on Bruff, and he is not so ancient at that.

From the above it will be seen that no nation uses a cannon longer than .50 calibers, so we will drop that, only commenting as Mr. Haws said "they are some long." But let us take your favorite (apparently) .22 caliber. That is .22 inch; .100 calibers long would be 22 inches for the barrel, while .50 calibers is 11 inches. Now, 22 inches is about right for a .22 rifle, but a .50-caliber rifle barrel would be laughed at. Likewise .25 calibers equals .25 inches, and .100 calibers long would be 25 inches. The Savage new .250-3000 has a 24-inch barrel. The Winchester .25-35 has a 24-inch barrel.

Remington .25 auto has a 22-inch barrel.

Again, .30 calibers equals .30-100 inches and .100 calibers long would be 30 inches, which was the length of the old Krag, now out of date. Winchesters use .24, Remington .22, Savage .22 and .28 in the old style, also .22-inch in the featherweight, and Stevens .24. Now you can see, Mr. Haws, that in quoting "cannon" you got into another range where perhaps the grass looked longer, but it was red-top and not much good. If we were to use the same standard for rifles (shoulder guns) as for rifles (cannon) the barrels would only be about one-half to two-thirds the length now used. Still did you ever try one of those 18-inch barrel Mauser carbines? Well, I think you would acknowledge them some shooters at that.

No! "Wyoming Bill" is not going to monkey with gas pipe. He did that in his kid days, and the doctor had to pick some



FRENCH 199=GR.



SWISS 176=GR.

of it out of him, also quite a lot of unburned black powder, and, well, airships are not in his line, nor does he want the neighbors to say, "How natural he looks!"

If you make that special long-pointed bullet, say of .10 or more calibers' radius, you will have the manufacturers of ammunition up in the air, for those bullets have to be very exact as to concentricity or, zip, away they go at any old angle, killing the neighbor's cow off to the right a few hundred yards, perhaps, and for that reason you will find that the ammunition manufacturers will fight shy of it with the cry of expense.

Wyoming.

BILL.

Lieut. Whelen Compiles a Table of Charges for the .30-40 Rifle.

Editor Outdoor Life:—I notice in the April number of Outdoor Life many inquiries as to velocities and pressures of loads for the .30-40 Krag and Winchester rifles. I have compiled the following table from data on hand, and believe that it may be of interest to your readers. The .30-40 is by no means a "has-been." It is a splendid hunting rifle, heavy enough for

the largest American game, and very reliable in its killing qualities, as many old-timers will attest. You will perhaps remember that about ten years ago you took a census of the rifles used by prominent big game hunters of the West, and that the .30-40 proved to be the most popular of all. Even today it is capable of holding its own at the target, as it is just as

accurate as the Springfield, altho of course on a windy day the Springfield has a great advantage, as small changes in the wind at long range which will not affect the Springfield bullet will put the old 220-grain blunt point bullet out for a "four." However, as will be seen from the table, the .30-40 can now be reloaded with the new powders to give exactly the same ballistics, accuracy, etc., as the Springfield—in fact, we can duplicate Springfield results exactly with it.

**CHARGES FOR .30-40 (KRAG) CARTRIDGE.**  
(Compiled, 1916, by Lieut. Townsend Whelen.)

Bullet weight.....	Powder, Kind.....	Powder, Gr. wt. ....	Testing range, feet.....	Velocity, F. S. ....	Pressure, lbs. per sq. in. ....
220 S. P.	No. 15 D	36.5	53	1924	.....
220 S. P.	No. 18 D	41.	53	2250	49,860
150 Ptd.	No. 18 D	48.	78	2810	48,400
190 Ptd.	No. 18 D	42.	78	2475	52,360
150 Ptd.	No. 15 D	45.	78	2575	33,060
220 S. P.	No. 19 D	36.7	53	1955	30,950
180 Ptd.	No. 19 D	43.	M.V.	2450	47,000
172 Ptd.	No. 19 D	38.6	53	2204	30,700
220 S. P.	No. 20 D	37.5	M.V.	2139	44,600
220 S. P.	No. 20 D	36.5	M.V.	2050	39,000
190 Ptd.	No. 20 D	37.5	M.V.	2212	40,600
180 Ptd.	No. 20 D	37.5	M.V.	2244	40,200
172 Ptd.	No. 20 D	37.5	M.V.	2293	36,900
150 Ptd.	No. 20 D	37.5	M.V.	2356	31,300
150 Ptd.	No. 20 D	43.5	M.V.	2700	46,000
150 Ptd.	No. 20 D	40.	M.V.	2450	35,000
220 S. P.	No. 21 D	33.2	50	1965	39,400
220 M.P.	W-A-H	34.5	53	1960	38,000
220 M.P.	W-A-H	36.2	53	2050	*.....
150 Ptd.	No. 75 D	15.	M.V.	1450	Est.
308284 I	Lt.g. H	23.	M.V.	1800	Est.
308284 I	No. 21 D	25.4	M.V.	1800	Est.
308241 I	No. 75 D	12.	M.V.	1300	Est.

Abbreviations: S. P.—Soft, blunt point. Ptd.—Spitzer point. M. P.—Metal patched blunt point. D.—DuPont. H.—Hercules. Lt.g.—Lightning. M. V.—Muzzle velocity. Est.—Estimated.

Remarks: <sup>1</sup>Maximum charge, shell full.

<sup>2</sup>Whelen's hunting charge in Krag rifle.

<sup>3</sup>A fine hunting charge with U. M. C. Umbrella bullet in Winchester rifles, but not recommended for Krag as pressure is too high. Same trajectory as Springfield rifle.

<sup>4</sup>A fine spitzer bullet charge for Krag rifle.

Can use U. M. C. Umbrella bullet.

<sup>5</sup>U. S. Government load.

<sup>6</sup>Old long range load.

<sup>7</sup>The best small game load I have tried. Works finely, does not tear grouse up. Very accurate. Government 150-grain Ptd. bullet used, but U. M. C. or Winchester will work as well.

<sup>8</sup>Ideal bullets are sized to .311 inches. Many of the newer Winchester rifles are chambered too closely to admit these bullets. These charges are fine in Krag rifles.

Pressures in Krag rifle: The Krag rifle was designed for pressures around 40,000 pounds. It is strongly advised that loads giving pressures over 43,000 pounds be not used in the Krag. The Winchester Model 1895 rifle will stand pressures up to 50,000 pounds, but owing to the elasticity of the action and a certain spring to the breech block the shells stretch at the higher velocity so that shells once fired in the rifle are stretched too long to be reloaded, and cannot well be resized. The Winchester single shot rifle will stand all the above loads, but it should be fitted with a smaller firing pin by Mr. Neidner, as the old black powder firing pin with which the breech belt of this rifle is equipped gives many punctured primers and miss-fires when modern ammunition is used.

Panama. TOWNSEND WHELEN.

### Know Your Gun.

Chauncey Thomas: I wrote Outdoor Life for addresses of Old Time Western experts with the S. A. Colts, and they said you were one of them. You remember that last fall you advised me to get a .44-40 S. A. Colt 5½ barrel? I ordered one that had 7½-in. barrel as I thought I could easily cut it off to 5½ inches. I found the 7½-inch too long a barrel, so I sent it back to the factory and they only charged me \$1.00 to cut off barrel and reset front sights. I like the arm much better now. I have also come to the conclusion that the S. A. .44-40 Colt 5½-inch barrel is the best one-hand gun out, so think I will drop all others and ever stay with the S. A. I thought for a while that the Colts New Service or the 1908 S. & W. would be a better arm, that is, faster in a hold-up and such cases where speed was the main thing on account of the double-action feature. But as I now understand it, a man that can handle the S. A. Colt would get in the first shot with any of them.

Do you think there is any advantage in a double-action like Colt's New Service or 1908 S. & W. over S. A. Colt? Are they faster and as reliable? As you have had many years' experiences with revolvers you ought to know why it is a better arm. Which is the best way to carry a S. A. concealed while in the city and quick to draw? How do you draw a S. A. Colt for fast work?

I believe I will order check wood grips for my S. A. as the plain ones that it now has seem too slick. Any information you can give on the S. A. Colt and how to handle it would be greatly appreciated.

I believe the .44-40 soft point jacketed bullet is hard on barrel but I don't know of any other caliber using the lead bullet that has the velocity and energy of the .44-40

Linkletter claims he has developed a .44-40 so it will outclass any other revolver cartridge in existence, but it would require reaming out of front cylinder and I would

have to buy, or have made, a complete set of reloading tools to use his loading. He takes a .44-40 shell and takes the taper out of it, then loads seven grains black powder and five grains of Bull's-eye, one cardboard wad one-sixteenth inch thick, then shoves in a three-groove 275-grain flat end bullet. The flat end measures .33-in. and the bullet is cast up one part rabbit to sixteen bar lead, and the three grooves are filled with graphite lubricant. He sent me samples and they look fine. Do you know of his loading, and what do you think of it?

Do you know where that Oregon man lives that makes, or takes part of, the S. A. Colt and turns out a S. A. side-swing cylinder revolver? He charges, I have heard, \$35.00 for them. Are they much better than the S. A. Colt, and would you advise me to get one of them? It is supposed to have a front cylinder lock and a good one. What should I get for sights to put on the S. A. Colt that would be an improvement over those factory-made, the plain V crack rear sight and camel's hump front sight? I don't like adjustable ones.

South Dakota.

C. G.

I have dozens of letters to look after every month, so this must be short. I write for a living, you know, and my free writing is very limited. The S. A. Colt has but one virtue over all other guns, its reliability. If you change it to a side-swing ejector you lessen that feature a great deal and add little or nothing to it for your purposes. Quick reloading is useful only in a war weapon, then the .45 automatic is best. The S. A. Colt, the New Service Colt, the .44 Russian S. & W. and the .44 S. & W. Special are all excellent revolvers. Each has its good points that the others have not to so great a degree, and there is but little choice between these four guns. What choice there is depends mostly on the shooter himself, and on the use to which he would put the gun. If you want a .44 side loader, then take either the New Service or the S. & W. Special.

I told you some time ago that the secret of shooting a revolver was to stick to one gun and to one load. When you begin to mix your drinks, or to experiment, you enter an entirely different field, either in guns or cartridges. And this experimenting injures any one's shooting. You are not qualified scientifically to experiment in either, so you had better stick to the load and gun you have, there is none better, and leave the experimenting field to more qualified hands, such as Newton's or Haines'. Mr. Linkletter's loads, for example, may be all right for Mr. Linkletter, who knows what he is doing, but they are not for any amateur like yourself to follow blindly. Here is one fact, for instance, of which you evidently know nothing, and it

is a very vital one, which for you to ignore may some time cost you a gun, or even some fingers—tho no two batches of smokeless powder run just alike, and that the right amount for a cartridge cannot well be determined by weight or measure, but must be a matter of experiment to see just how much produces the desired velocity, chamber pressure, etc. All this you and others not qualified should leave strictly to the experts. It is much like home doctoring with dangerous powerful medicines. The label on the bottle is not sufficient, nor is the label on the powder can.

Please do not write to me to ask about any changes from the standard weapons and loads, as I do not "monkey" with them myself, nor do I advise others to do so, except men like Mr. Newton or other scientifically equipped men. That Oregon man's address is of no interest to me, and you had better forget it, and put the money into cartridges and blaze away at tin cans.

The revolver can be pulled faster from the right leg. Have the holster tied to the leg just above the knee, and, of course, supported from the waist belt. But this is never done nowadays except in some far-away dangerous place, like Mexico just now in the Villa region. There is no way to carry a gun conveniently and yet have it always handy and still concealed. The best compromise of these three things is on the right hip. A gun is best concealed under the waist band and vest on the right side. If one wears an overcoat, or must bend over much, then under the left armpit is the best place. It all depends on circumstances. As with the guns themselves, there is no best way, any more than there is a "best" gun.

This thing of "quick draw," etc., you read about is all tommyrot. There is no secret to it; it is just having your gun in a convenient place, depending, as I said, on how you are dressed, etc., and being acquainted with its habits. This is the reason of sticking to one gun and to one load in just a new phrase. Learn to reach for the gun as you take off your hat, that is all there is to the "quick draw."

The rest of it is just like dime novel rumor. The cowboy galloping blithely along who pulls his trusty Colt so quickly that the eye cannot follow his hand, and pops off the head of a leaping jackrabbit, as we read that Lin McLean did in the "Virginian," never did any such a thing. If he was galloping his gun was tied in the holster, and usually tied tight to his leg, otherwise it would pound like a rock in a sack. A lot of men used to wear the gun on the saddle horn, in a covered holster, for this reason.

Get over your moving-picture cowboy dream about the revolver, and look on it

for what it really is, and has never been anything else, just a gun like a shotgun or rifle. It holds the same relation to a rifle that a motorcycle holds to an automobile. Going into "pipe dreams" about the revolver belongs exclusively to the small boy killing Indians in the backyard with the aid of ma's feather duster poked down the back of his neck and his trusty rifle composed of a broom stick tied to a shingle for a stock. I used to do all that, but when a man learns to smoke and shave it is time he forgot it.

So stick to one gun and one load, if you would be a shootist. Otherwise you prob-

ably will not get much better results out of any revolver than you could out of a beer keg loaded with fire crackers and a pumpkin.

I have answered this at length as I shall probably publish part of this letter in the magazine. I shall always be glad to briefly answer necessary questions, but I cannot hereafter take the time and attention to discuss gunology by mail, as I have more important and incidentally more profitable things to do. Otherwise I would need a free meal ticket, forty days in a month, and about nine stenographers.

CHAUNCEY THOMAS.

### Work of the .250-3000 on Moose.

Editor Outdoor Life:—As you know, I am quite interested in the subject of the killing power of high-power cartridges, and as there has been considerable talk in the magazines of the efficiency of the .250 Savage on large game, I thought I would let you know of what I have seen of the work of this bullet on moose. The last five years I have been enthusiastic for the Springfield, and have shot moose with all types of bullets made for this gun, but last fall I saw a moose that was killed by the .250 Savage, and the work done by that little bullet is equalled only by the umbrella point Springfield bullet. The animal in question was killed by a friend of mine at the same hunting club last September at a distance of probably thirty yards, and was shot while standing in a stream. The animal received but one bullet, fell at once—which is not a usual thing with moose in my experience—and managed to stagger to the bank, probably fifty feet away, where he fell over on his horns and died at once. The bullet entered his right foreshoulder, smashing it to pieces, tore his lungs all up,

and made a most horrible pulp of him. The bullet completely disintegrated. I examined this carcass thoroly, and the work done was terrific. Later on, this same gun killed a bear in a trap and blew his skull to pieces, altho I did not personally see that carcass. In view of the fact that there has been so much uncertainty as to what this gun would do on moose and, in view of much correspondence I have had with Crossman—in which we both thought it might not be powerful enough for these animals—I thought you might be interested in hearing what I had seen it do.

Penn. J. F. REYNOLDS SCOTT.

Note.—We are indeed interested, and know our readers also will be, in the great work that the .250 Savage is doing. Steve Elkins, the Montana guide, uses it exclusively on grizzly and black bear, and others of our personal acquaintance rely on it for such game as elk, bear, etc. We are always glad to get such expressions as the above from actual sportsmen, and hope Mr. Scott will come again.—Editor.

### Rebuilding a Mauser.

Editor Outdoor Life:—I noticed in a late issue of Outdoor Life a request about the Springfield service rifle. May I tell the readers of Outdoor Life how I rebuilt a 7-mm. Mauser carbine into a sporting arm? Some time after the Spanish-American war, a friend of mine gave me an old 7-mm. Mauser carbine which I used for hunting purposes. I finally decided to have a new barrel fitted on my Mauser and sent it to Mr. Ludwig Wundhammer of Los Angeles, Cal. The gun was fitted with a new Springfield barrel for the 1906 cartridge at a cost of \$10.00 and a little extra for lengthening the magazine. I then trimmed the wood down to a sporting model and put a few layers of sole leather on the butt of

the stock to lengthen it, and balance the arm properly. I fitted a Marble (special base) flexible peep sight on the stock just ahead of the comb so as not to interfere with the bolt operation.

This arrangement gives thirty-four inches between sights, which is a decided advantage in long-range shooting. I have fired this arm very rapidly, and it has never balked or jammed, and I have used every make of cartridge, including the 220-grain and the 150-grain umbrella point.

This is a cheap way to get a bolt gun for the Springfield cartridge, and I testify that it will compare very favorably with the service rifle in every way.

Calif. REV. ARNOLD NELSON.



### Good Shooting With the New Service Colt.

Editor Outdoor Life:—Am enclosing three targets I shot recently at twenty-five yards, offhand, with .44-caliber New Service Colt, with 7½-inch barrel, hand-loaded shells. I have used about all the best makes of re-



volvers in nearly every caliber made, but came back to the heavier Colt New Service to do my best shooting. I recently made a score of two bulls out of six shots at a 3-inch, fifty yards, offhand, with this New Service. Of course, I am far from a crack shot at that, but a foreign invader would know that I was there. C. M. CARSON.  
Missouri.

Note.—We reproduce herewith one of the targets (actual size) made by Mr. Carson.—Editor.

### Erratum.

In the very interesting article in our May number on revolvers, by Ashley A. Haines, we inadvertently failed to mention the original size of the targets published therein. This was a very serious oversight that we regret very much. All the targets except the last—Nos. 3 and 4—were reduced one-half, the last one being published full size.—Editor.

### Referred to Our Readers.

Editor Outdoor Life:—I have read many discussions on rifles and pistols in Outdoor Life, but never have I seen an article on the Luger pistol, 12-inch barrel, 7.65 mm., using the 93-grain bullet. I would like to have some information regarding same, as I consider this weapon as dependable a gun for all-around hunting as there is on the market.

I have hunted deer, wild cat and cougar and I find the gun to be very effective on these animals. I do all of my hunting in the Oregon country. Would like to know how this gun acts with bear and how does it compare with the .25-35 cal. Winchester rifle.  
N. T. WOODS.

Oregon.

Writes Edward L. Crabb of Shoshone, Wyo.:—Your note about my questions regarding the ballistics of the Krag cartridge with the 150-grain bullet was received today. The Winchester people write me that their .30-40 cartridge loaded with the 180-grain bullet performs as follows: Muzzle velocity, 2,353 ft. sec.; muzzle energy, 2,213 ft. lbs.; 200 yards trajectory, 3.76.

### HUNTING IN MEXICO DURING THE REVOLUTION.

Ralph Edmunds' story of Mexican sheep hunting will be concluded in our July number. Do not fail to read this, the most interesting part



of Mr. Edmunds' hunting story. A true account of a hunt in Lower California, Mex., and an unvarnished description of the country.

# ARMS & AMMUNITION

## QUERIES

I wish to call your attention to your answer to a question asked on page 304 of the March issue, by Chas. W. Hayes, with regard to his .35 cal. Winchester self-loading rifle. He asks for the velocity and energy at various ranges of the model 1905, .35 cal. Winchester self-loading rifle; and the figures you give in the table of ballistics are those for the model 1907, .351 cal. Winchester self-loading rifle. I take the liberty of calling your attention to this, feeling that it might be the cause of much disappointment to Mr. Hayes should he take his proposed deer hunt with his .35 Winchester auto supposing it to possess the ballistics of the .351, for, as you know, the muzzle velocity of the .35 is only 1,396 ft. sec., as against 1,861 ft. sec. for the .351, and the muzzle energy of the .35 is 779 ft. lbs., as against 1,385 ft. lbs. for the .351.—Chas N. Cox, Magdalena, New Mex.

Answer.—You are entirely correct. We were under the impression that the .351 Winchester was the caliber referred to, as the .35 is a far less powerful weapon and very few in use.—Editor.

My pal is the proud owner of a new .45 cal. Government Model Automatic Colt, while I possess a .45 New Service. Now, my pal says his gun has "got it all over" mine in many ways; some of these I will admit, rapid firing being one of them. He also says that his gun is more accurate and has a greater killing power on game. I am ready to argue that it has not. In my opinion the .45 Colt cartridge is the most powerful and deadly of any short guns. I would appreciate it very much if you would help us straighten out this tangle we are in by giving your valued advice as to the above. I have a Colt, model 1886, 14-shot repeater, .32-20 cal. rifle with a 26-in. octagonal barrel. Could you let me know how much this rifle sold for when on the market? I have written the Colt company in regard to the above but did not get any satisfaction, as they stated in their reply that they have discontinued making this type of arm for some years and did not state anything in regard to the price which it was sold for.—A. E. Kushner, Chicago.

Answer.—The .45 Government model automatic Colt uses 230-gr. bullet at 809 ft. sec. velocity with an energy of 336 ft. lbs. The .45 Colt uses a 255-gr. bullet at 770 ft. sec. velocity with an energy of 336.3 ft. lbs. So you see honors are about easy between the two. We could not give the selling price of the Colt .32-20 rifle.—Editor.

I have recently obtained a Krag rifle and am looking for a better load than the regular soft-point 220-gr. bullet. Have tried the Ideal 308334 with different loads of W. A. .30 cal. powder, but these loads do not shoot uniform in my rifle. Have tried to get some of the 172 or 180-gr. spitzer soft-point, but have not found any as yet. Can you tell me where I can obtain these, also how many grains of W. A. .30 cal. powder to use? Would 35 gra. cause more breech pressure with either this bullet or the Ideal 308334 than with the regular service or the soft-nose bullets? Would Lightning powder give

better results? Will have lots of the government cases to reload, as we have a club and range here.—F. W. Powers, Parkdale, Colo.

Answer.—Your lack of success with the Ideal bullet mentioned was due to the use of W. A. powder, which was too coarse. You should have used Lightning or Sharpshooter. There is not resistance enough to burn the W. A. The Newton Arms Co., whose advertisement is found in another column, furnish a 172-gr. spitzer soft-point bullet which works nicely in the Krag. We have not worked up any charges with W. A. powder in the Krag shell but you could easily do this. The pressure with 35 grains would be much less than that with the Krag shell. A good rule would be to begin with 35 grains and increase the charge a grain at a time, looking thru the bore after each shot, and keep increasing until you notice no rings of unburned powder in the bore. Any bullet lighter than the 220-gr. will give less pressure than the 220-gr. with the same powder charge.—Editor.

I am ordering a Nledner rifle, Winchester S. S. action, double set trigger and special short, sharply-curved pistol grip. Now, I can't decide between a 28-in. No. 3 barrel or a 28-in. barrel the same size as the Winchester 1895, .30-40 repeater. I do not expect to do any off-hand shooting with this rifle, so I had rather have the light barrel if it would give as good accuracy. In any case I intend to have the sling swivels, etc. brazed to the barrel, so there will not be any slots in it. If you will kindly let me know if the light barrel would be as accurate as the No. 3 I will be greatly obliged.—C. A. Mentzer, Carrizozo, New Mex.

Answer.—For rest shooting the heavy barrel is better as it vibrates less; otherwise there would be practically no difference in accuracy. The draw of the sling on the barrel would affect the light barrel more than the heavy.—Editor.

I am a reader of Outdoor Life and would like to ask a few questions in regard to the .333 Jeffery rifle. What is the price, weight, length of barrel, recoil in ft. lbs., number of shots and energy, and is there any make of rifle besides the Jeffery that handles that same shell?—C. F. Shoemaker, Seattle, Wash.

Answer.—The Jeffery rifle sold in one grade at \$105 and in another grade at \$130 prior to the advance about two years ago at the time the tariff was increased. We would anticipate about a 10% increase above these prices. The barrel is 25 in. long, weight 8¼ lbs., energy at muzzle 3,750 ft. lbs. We do not know the recoil in ft. lbs. Some German Mausers have been made to handle the .333 Jeffery shell.—Editor.

I noted your statements in the May, 1915, number, on the relative merits of smokeless and Lesmok powders when used in the .32 cal. I should like to know how these powders compare when used in the .32 short Colt. The use I have in view is with an adapter in a .30-30. Which is the stronger? Please also give the powder charge in the

# A Family of Fishermen

Fishing runs in some families. It ought to run in all families. It is the most healthful and wholesome sport on earth. On this page we take great pleasure in showing a "Family of Fishermen" of which there are 20 in the three families.

- |  |  |
|--|--|
| <p>No. 1. M. P. with a 10-lb. string of Brook and Lake Trout caught on a "BRISTOL" Rod at Lake Placid, N. Y.</p> <p>No. 2. B. C. with a creel of Brook Trout weighing 16-lbs. caught on a "BRISTOL" Rod at Isle Royal.</p> | <p>No. 3. J. S. and B. C. with a 47-lb. string of Bass caught on "BRISTOL" Rods in Leech Lake District, Minn.</p> <p>No. 4. C. P. (son of J. S.) and M. S. (son of B. C.) with a 7-lb. Lake Trout caught on a "BRISTOL" Rod at Isle Royal.</p> |
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.303 Savage, compared to the .30-30.—Arthur E. Gardner, Portland, Ore.

Answer.—We do not know whether or not the .32 short Colt is loaded with smokeless powder. If properly loaded it should give fairly good results. We are not familiar with the powder charges used in the .303 Savage, as different firms load them differently.—Editor.

I have ordered a Winchester rifle, model 1895, carbine, .30 Govt., model 1903. Will this gun handle all the four following cartridges: .30 Govt. model 1903, 220-gr. bullet; .36 Govt. model 1906, 150-grain pointed bullet; .30 Govt. model 1906, 180-gr. pointed bullet; .30 Govt. model 1906, 220-grain bullet. These are the last two cartridges listed on page 53 and the first two on page 54 of the Winchester catalog No. 79. Is not the .30 Govt. model 1903 and the .30 Govt. model 1906, 220-gr., the same?—E. D. Miller, Miles City, Mont.

Answer.—The shell of the model 1903 is slightly longer at the neck than that of the model 1906. As your rifle is for the model 1903 you can fire all the cartridges in it, but you would not get as accurate results from the 150-gr. pointed bullet from the model 1906 shell, owing to its short bearing, as the lip of the shell came to the end of the chamber. The model 1903 and model 1906 shell with 220-gr. bullet differ in the length of the shell only, in the 1906 model the shell being a little shorter.—Editor.

I would like to have your idea and advice about the 8mm. Mauser which I am thinking of buying. Can you please tell me the velocity and the penetration of a shot from this rifle, also how many yards it is good for, and the probable drop of the bullet under the number of yards?—Wm. E. Schlink, Forest Park, Ill.

Answer.—You will find the ballistics of the 8mm. cartridge on our ballistic page in the April issue. The rifle is accurate to about 1,000 yds.—Editor.

Can the .250-3000 Savage cartridge be loaded with 86-gr. .25-20 metal-cased bullet to give about 2,000 ft. sec. or less, and good results be obtained?—Geo. Sharp, San Jose, Calif.

Answer.—The rifle can be loaded as above with good results.—Editor.

Are pistols chambered in the same manner as rifles, that is, for the longest cartridge, as in the .22 caliber rifles that handle the short, long and long rifle cartridges? The following questions all concern the .22 Smith & Wesson perfected single-shot target pistol. What is the best cartridge to use? Can the long be used just as well as the long rifle cartridge without injury to the barrel? Can all shots, using the long rifle, Lesmok, be placed in the 10 circle of the standard target at 50 yards? Can the same be done with the long, Lesmok cartridge? I want to use the pistol about twice a week, shooting from 75 to 100 shots; what is the best way to clean it? Don't you think a bristle brush, used too much, would hurt the barrel?—William Retlaw, New York, N. Y.

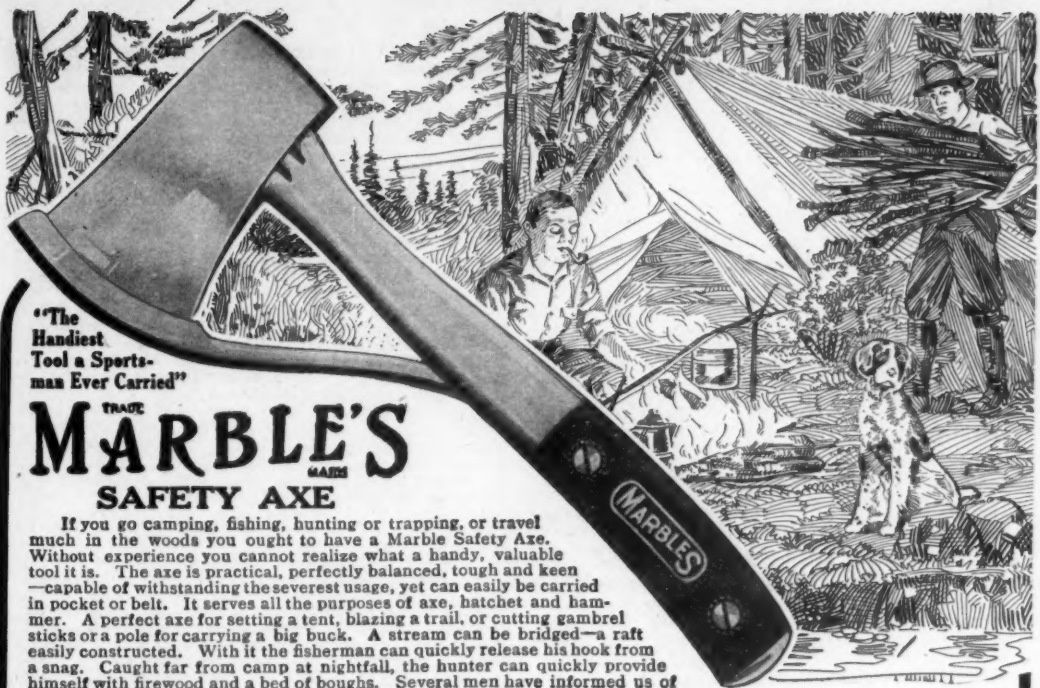
Answer.—The .22 Smith & Wesson target pistol is chambered for the .22 long rifle cartridge and this is the best to use. The .22 long loaded with black or Lesmok will not injure the barrel, but is not as accurate. The pistol is accurate enough to place the shots in a ten-inch circle at 50 yards. In cleaning moisten the inside of the barrel slightly; usually breathing thru it is sufficient; wipe it clean and oil it. An oiled patch put

thru in the first instance will also moisten the powder and it will clean readily. A bristle brush will not hurt it unless it is one of those with a twisted wire handle. These we would not use in any gun.—Editor.

What is the name and caliber of the most powerful pistol or revolver made? Please calculate velocities and energies of the following revolver with 7½-inch barrels, with both black and smokeless powder loads: .38-40, .44-40 and .45 full load. Can high velocity loads be used in .38-40 and .44-40 Colt New Service revolvers? If so, give velocities and energies. Of the automatic type of pistol which is the most powerful, that is, most effective on big game? What is the heaviest charge of both black and smokeless powder that the .38 S. & W. Special and the Officers' model Colt revolvers will safely take? Under these conditions how would it compare with the larger revolvers in killing power? What I am after is a saddle pistol or revolver effective enough for deer, bear, coyotes and wild cats. At present I use a .38 Officers' Model Colt in a 6-inch barrel and it is not nearly effective enough, using the U. M. C. or Winchester smokeless full loads. Kindly advise the most effective and at the same time most accurate arm for my work. Can I use hand loads in my .38 Officers' Model Colt and make it as effective?—A. J. Jensen, Oak Bar, Calif.

Answer.—According to Mr. Himmelwright's figures the .30 automatic Colt pistol is the most powerful. The second is the .38 W.C.F. Colt revolver. According to Mr. Himmelwright the .38-40 cartridge fired from a five-inch barrel has a velocity of 983 foot seconds with an energy of 386 foot pounds. The .44-40 has 918 foot seconds velocity and 375 foot pounds energy. The .45 Colt has 770 foot seconds velocity and 336 foot pounds energy. We have no data regarding black powder loads, the above being smokeless. We would not use high velocity loads in revolvers. We would consider the .45 automatic Colt pistol and cartridge the most effective on game. We are not acquainted with the safety limits of the .38 Smith & Wesson Special. It is doubtful if you can make your .38 caliber revolver as effective as the larger calibers, as they handle a heavier bullet.—Editor.

As I desire a rifle for ducks and indoor use as well as for target use up to 400 yards in good weather, I am coming to you for advice. I do not care to invest in a rifle of the .22 H. P. class, but prefer to work up a load for the rifle which I now have (or rather one of the rifles). The rifle I have in mind is my .25-25 '86, Stevens 044½, a light-weight model. In this model the weights run about 6¾-7 pounds. These rifles have a soft steel barrel so I do not care for the jacketed bullet in the proposed load. I have written the Ideal Company and they state that they have perfected a gas check bullet for use in the .250-3000 Savage. I believe that this bullet has a lighter ballistic co-efficient than the .25-86-grain bullet, Ideal number 25720, consequently should "hold up" better at long ranges. Now the questions I would like to ask are these: No. 1. Can a load be worked up which will give 1,750 foot seconds velocity with such a bullet and be safe to use in this rifle? No. 2. Would the wear upon the bore of the rifle be great, and would there be a pronounced tendency to erosion? I would like to be able (with proper care, of course) to fire a couple of thousand rounds before losing accuracy. No. 3. Would there be stripping and leading of the bore at this velocity? My own private opinion, based upon the reports of others, is that velocities as high as 1,800-1,900 foot seconds may be



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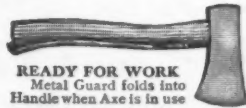
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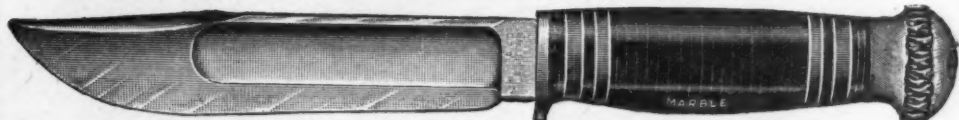
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successfully obtained. No. 4. What would be the proper kind of powder to use and what charge? How would the new Du Pont No. 80 do? I have scales which measure to  $\frac{1}{4}$  grain. Is this accurate enough. No. 5 (and last). Could one get a fairly accurate idea of the average velocity over 200 yards, say, by finding the zero of his rifle (say the setting of sights for elevation which would cut a horizontal line at 25 feet) then shoot at the lower margin of a straight black horizontal line at 200 yards with elbow and sandbag rest a string of fifteen or twenty shots; measure the distance each shot dropped below the edge of the line and apply the physical formula which shows the time required for objects to drop a certain distance. This formula when applied to the average "drop" would give the average time required to cover the distance. If this would work out then by getting the ballistic co-efficient and tables the muzzle velocity could be approximately ascertained. I crave your pardon for having written so voluminously, but you see I am the worst kind of a crank, so there's some excuse. If this proposed load is o.k.'d by you I shall try out the "dope" in No. 5 and let you know the result of a number of averages gotten on different days. You need have no fear of my blowing my precious head off, as I have had some experience, also being Scotch, I'm cautious by nature.—MacGregor MacMartin, Fayetteville, N. Y.

Answer.—We apprehend that to get 1,750 foot seconds velocity together with safe shooting it would be necessary to use Sharpshooter and this is so hot it would in all probability give erosion in your barrel. We would fix 2,000 rounds as the limit before trouble began. We do not think there would be any trouble with stripping or leading if you used suitable metal in the bullets in connection with the gas check. We are not familiar with the Dupont No. 80 powder;  $\frac{1}{4}$  grain would be sufficiently accurate. Your method of computing velocity would be very difficult to work for the reason that it would be hard to obtain the true zero of the rifle. If you cut a horizontal line at 25 feet your rifle would be sighted very high indeed. The trouble lies in the fact that your sight line is above the bore and the bullet has to draw up into the sight line.—Editor.

I have a Remington .22 caliber repeater, and as the same can't be cleaned from the breech, I must clean from the muzzle. Now, I have read that continual cleaning from the muzzle will wear away the rifling at this point and thus spoil the accuracy of the rifle; is this true? Noticed an article in a sporting magazine recently where a writer recommended putting a brass thimble in the bore at the muzzle end to prevent the lands from being worn by the rod in cleaning a rifle. Can you tell me where I can purchase such a thimble for my rifle? As my rifle is chambered for the .22 long rifle cartridge, will it not shoot more accurately with the same than with the .22 short?—P. W. Hansen, Altona, Man., Canada.

Answer.—Continual cleaning will wear away the rifling at the muzzle and this may affect accuracy. We would expect, however, that it would have more effect in changing the zero than in enlarging the groups. This is the experience of Mr. Haines, who made quite a thoro test of the matter some two years ago. We do not know who has the thimbles for sale. Your rifle will shoot more accurately with the .22 long rifle than with the .22 short.—Editor.

What length of barrel is used in compiling the ballistics of our modern high-power cartridges; is there a standard testing length? How does the Ross .280 compare

with our Springfields for accuracy? The Ross people claim that any of their rifles with their copper tube sporting ammunition will make ten-shot groups of from four to six inches at 500 yards, and that they will far outshoot the best of the Springfields with match ammunition. Now I am "from Missouri" on this and would like to know if our foremost authorities, such as Lieut. Whelen and Mr. Crossman, consider the Ross more accurate than the Springfield, and why? What weight of bullet will give the most energy in the Springfield, loaded with enough of the Dupont No. 15 powder to produce a given breech pressure not to exceed 56,000 pounds per square inch? What is the history of the boat-tailed bullet, the missile that is a Spitzer on both ends? What good and bad qualities has it developed in experiments up to the present? What makes of rifles are regularly equipped with the Poldi Anticorro rustless steel barrels? And what firms can so equip their rifles on special order? Could I get an old 7 mm. Spanish Mauser rebored and chambered to an 8 mm. or .30-06? About what would the job cost?—Mathew Leuschen, Billings, Mont.

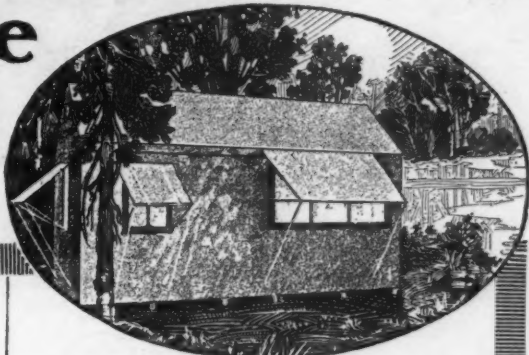
Answer.—The standard length for a testing barrel is 30 inches and most of our ballistics are given as obtained in 30-inch barrels. The Ross .280 when using the 180-grain full jacketed target bullets is just as accurate as the Springfield, and, owing to the greater bullet length, is somewhat longer range. At ranges beyond 1,000 yards it is more accurate than the Springfield, due to its longer bullet. With the copper tube it seems to be another story. Inasmuch as you want the opinion of Lieut. Whelen and Mr. Crossman will quote the opinion of the latter, as printed in the February, 1916, issue of Rod and Gun in Canada, as follows:

"The Ross varies hugely in its accuracy with the 142-grain bullet, altho it is high with the 180-grain match. Six rifles tried out and taken from stock here gave me an average of about 8 inches for ten-shot groups at 200. This is good enough for game, but not as accurate as the rifle should be for target and the finest work on game.

\* \* \* The high quality of the cartridges, hand-weighed powder charges, beautifully made and uniform bullets, and the best of our powder, makes the comparative in accuracy of the rifle hard to understand. Sure it is that the trouble does not lie in the ammunition, or the beautiful barrels put on the rifles." (Page 922.) Lieut. Whelen's opinion is about on a line with the above. The heavier the bullet used the greater the energy which can be imparted to it by the powder, provided a suitable granulation of powder be used, as the bullet weight being greater the velocity is cut down and there is more barrel time in which the powder can exert its pressure. The boat-tail bullet has been used off and on for over fifty years. At present the only countries using them are the French and the Swiss. They must be very nicely balanced or are very inaccurate. No rifles are regularly equipped with the Poldi anticorro steel barrels and we doubt if any one outside of Austria can furnish them at the present time, as they are imported and the Austrians are somewhat busy just at present in the gun line. You could probably get your 7 mm. Spanish Mauser rebored to either 8 mm. or .30 '06 caliber. It would cost from \$10.00 to \$12.00. The magazine is not long enough to handle the .30 '06 cartridges.—Editor.

How does the action of the Ross .280 compare with the Springfield? Is the magazine of the staggering type or does it extend below the frame as the box magazine Winchester; also length of barrel? Please des-

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cribe the copper tube expanding bullet. Please describe the Lee Straight-Pull rifle in regards to action, caliber and length of barrel. Where can the German 7-65 mm. Mauser rifle be obtained, also length of barrel? Please explain the workings of a double set trigger. You say in answer to Warren H. Schnable, Bethlehem, Pa., that the Colt New Service being solid frame will not shoot loose like the single action. Is not the single action also solid frame? Then why is it more apt to shoot loose?—J. C. Nelson, Twin Falls, Idaho.

Answer.—The action of the Ross rifle is of the straight-pull variety which is functioned by pulling the bolt handle straight to the rear. It works more rapidly than does the turn bolt style of the Mauser and Springfield, but on the other hand has less extracting power. The magazine is of the staggered type and does not extend below the frame. It holds four cartridges. The copper tube expanding bullet is a spitzer in form, the jacket extending to within about  $\frac{1}{4}$  inch of the point. The front part of the bullet is hollow and the copper tube is inserted which continues the outline of the jacket to the point, the base entering the hollow in the front portion of the bullet. They were invented by Col. Jacobs, in India, about 1850. The Lee Straight Pull rifle is operated by a straight pull to the rear. The bolt handle is pivoted on the bolt and is in the form of an inverted L pivoted below the angle and with the knob at the lower end. The breech bolt is locked by the rear end of it dropping down in front of a shoulder in the receiver. When the lower end of the bolt handle is drawn to the rear the forward projecting arm of the L serves as a lever and the rear end of the bolt is thus pried up out of its bed in the receiver, then drawn back to the rear. It is of 6 mm. caliber with 28-inch barrel in the military model. The German Mauser rifles can be obtained from H. Tauscher, of New York City, if there are any in this country at the present time. A double set trigger consists of a rear or set trigger and the front trigger. The set trigger is driven by a main spring and when the finger piece is drawn back the forward end of the set trigger is caught in a notch in the front trigger and the main spring is thus held compressed. A very slight touch on the front trigger is sufficient to release the front end of the set trigger, which is then thrown upward by its main spring, striking the sear of the gun and knocking it out of engagement with the bent and letting the hammer fall. The single action Colt is not a solid frame, the frame being made up of several distinct pieces fastened together with screws. It is at these joints that the guns frequently work loose.—Editor.

Can you tell me if Brayton tubeless telescope sights are practical for hunting sights?—James Robinson, Rivera, Calif.

Answer.—We tried out one of these sights when they were first brought out and found them entirely impractical and their manufacture has been abandoned.—Editor.

Would there be any danger in using a spitzer point bullet in a tubular magazine? I have a Stevens .25 and want to use the .250-3000 Savage bullet in reloading, but am afraid there would be danger in using the spitzer point in the Stevens magazine. About what load could you use with this bullet? Would 25 grains Lightning be safe? Would the Ideal cast bullet with gas check give good results?—O. R. Miller, Meeker, Colo.

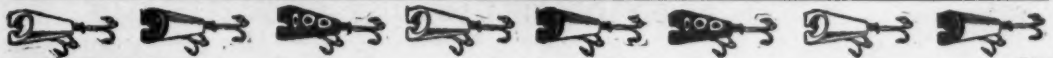
Answer.—There would be no danger in using the spitzer point bullet in your Stevens. The load which would be safe depends

upon the strength of action of the rifle. We are not very positive on this point. We have used 25 grains Lightning with this cartridge but in a single shot action. The Ideal cast bullet with gas check would give good results up to the point where the pressure began to strip the lead.—Editor.

I am thinking of buying an 1895 model Winchester carbine, to be used for all-round purposes, i. e., for deer and coyotes up to 400 and 500 yards, and reduced loads for rabbits and such game. I would appreciate your advice as to the cartridge that would be the most suitable for all round use. I have been considering the following in .30 caliber, the .30-40 army or .30 '06, and if I should have the gun adapted to other cartridges than it is regularly manufactured for. I have considered the Newton .22 or .256. I see in my last copy of Outdoor Life you say the Newton .22 doesn't work well in the '95 model Winchester. Does the Newton .256 work well in the '95 and can the regular .25 bullets be used in reloading the .256, i. e., .25-20 W., .25-35 W. or .250 Savage? I see the .22 and .256 Newton have it over the .30 '06 '95 model for velocity and trajectory. How do they compare with it for accuracy? I know I would want Ideal tools. Do you consider the Ideal U. P. measure accurate enough in throwing charges for loading such high power cartridges as these mentioned? And would it be safe to load full power loads? Are the .22 and .256 Newton shells the same size as .30 '06 except the neck? Is the .30-40 loaded with 150 grains sharp point bullet much inferior to the .30 '06 (same bullet)? How should I address a letter to get H. 48 primers and .30 '06 empties? And can the .30-40 empties be secured from the arsenal also? Will H. 48's fit .22 and .256 N? When non-mercuric primers and smokeless powder is used is it necessary to clean shells? Would these shells have to be resized the entire length or just the neck? Taking everything into consideration, procuring loaded cartridges and stock to reload with; having to have the gun changed for .22 or .256, are either of these cartridges satisfactory enough in the gun and enough more efficient to justify the change and would the extra expense be prohibitive to a common chap? Is the Colt .45 Auto as reliable when well cared for as the Colt .45 single action? How much inferior in shooting quality is a 12 gauge 1897 model Winchester with 26-in. full choke barrel to the same gun with 32-in. barrel, same gauge and bore? World Lyman receiver sight and small bead front sight (ivory or gold) be best for the carbine, or can you suggest some better? How does the '97 Winchester riot gun shoot small shot, 4s to 7 $\frac{1}{2}$ s?—J. H. McCabe, Divide, Tex.

Answer.—Neither the Newton .256 or .22 work well in the model 1895 Winchester when reloaded with the full charges, as there is so much spring in the locking mechanism the reloaded shells are apt to stretch and stick in the chamber. You cannot use the regular .25 bullets in reloading the .256 rifle but the makers furnish a 100-grain full mantle spitzer bullet for reloading with light charges. The manufacturers claim the .256 Newton has been tested at the Frankford Arsenal and gave accuracy slightly better than that of the Springfield. Would suggest that you write them for the figures. The Ideal Universal powder measure we do not consider sufficiently accurate to load high power charges up to the full limit, as they vary about a grain in either direction. The .256 Newton shell is about 1-32 inch shorter than the Springfield both at neck and shoulder, while the .22 is of the same length as the 7 mm. The .30-40 loaded with 150-grain sharp point bullet can be made to give





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It Wiggles! It Wobbles!

The *Jim Dandy* bait is the sensation of 1916. When it is reeled s-l-o-w-l-y through the water it has the true wiggly, wobbly motion of an injured minnow—it's the only bait that actually imitates wounded nature and turns nearly every cast into a strike.

*Jim Dandy Bait*

101 Plain white, for fishing on dull, dark days.

102—White with red collar, for fishing on bright days.

103—Frog color, for fishing in murky or roily water.

At all dealers in fishing tackle, or mailed on receipt of 75c



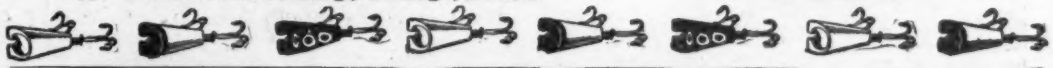
**The Great Fish Bait I Whittled**  
It took me 10 years t' whittle th' *Jim Dandy*, an' th' first time I tried it there was a riot among th' fish. I never saw so many hungry game fish before in all my life, an' every one of 'em was after my bait. Th' *Jim Dandy* got so popular that fish actually sat on top o' th' water lookin' for it, an' whenever it is used, th' fish refuse t' strike at any other kind, an' I don't blame 'em, either. You can't cast fast enough t' suit th' fish



when you use th' *Jim Dandy*. Better get a *Jim Dandy* an' get th' fish.

*Mary Schellinger*  
Jim Dandy's Father

Wise Sportsman's Supply Co.  
837 Great Northern Bldg., Chicago, Illinois



\$5.25

## A Fly Reel That's Sturdy, Dependable and—Light!

—that's what scientific anglers have for years been demanding. That's what we believed our designers had at last evolved when in the Spring of 1915 we first placed the result of their long months of experimentation and exhaustive tests before anglers in our

### "Pflueger-Golden" West Fly Reel

A year's trial in the hands of anglers—subjected to the hardest tests under actual service conditions—has but strengthened our conviction that in this reel we are offering the finest light-weight, sturdy, dependable, efficient fly reel yet produced.

Besides reduction in weight (carried as far as durability and "bull-dog" strength would permit) notable features of this reel are:

Specially designed "line shedding" oil cups, click buttons, counter sunk screws and cranks, preventing the line from fouling. Patented reinforced flanges shaped to preserve their strength with maximum capacity and even tracking line. Crank screws and oil cups slotted to admit a one or ten-cent piece a convenient, always at hand screw driver). Improved adjustable click operates with STRONG resistance when line is going out, LIGHT when reeling in. Workmanship and materials are "Pflueger quality" and covered by our unqualified guarantee "without time limit."

See this reel at your dealer's today. If he hasn't his supply yet, send direct. Prices (packed in velvet lined jeweler's case with Marvel oil can): 60-yards, \$5.25; 90-yards, \$6.25; 100-yards, \$7.25.

The Enterprise Manufacturing Co. Dept. 52 Akron, O.

NOTICE—Write for free copy "Tips on Tackle" containing much information for anglers.



# LU TZ PORK BAIT

"The Most Lifelike and the Most Killing Casting Lure in Existence"

This is the first time the *Lutz Lure* has been advertised direct to anglers—yet it is the "stand-by" all over America where bait casters have made its acquaintance.

Used with the spinner and single hook, or with spinner and fly or bucktail, it is certain and deadly in all seasons for black bass, pickerel, pike, "jack-salmon," or muskies.

Do not mistake the *LU TZ LURE* for ordinary "pork rind." It is scientifically and accurately manufactured from selected material, specially cured so as to retain its remarkable pliability and toughness under long usage. Put up in strong, screw-top glass bottles. Keeps indefinitely. One bottle of one dozen strips may easily take one hundred bass. If you are a bait caster, and there is a game fish in your vicinity, one trial will make you a lifetime user of *Lutz Pork Bait*.

If your dealer cannot supply you, order direct. The retail price is 25 cents per bottle, by parcels post.

LU TZ PORK BAIT CO.  
918 Wyandotte St., Kansas City, Mo.



nearly as good results as the .30 '06. You cannot purchase the primers and shells from the Government unless you belong to a rifle club affiliated with the National Rifle Association and the orders are sent in by the secretary of the club. We do not think the .30-40 empty shells can be secured from the arsenal. The H-48 primers fit all the Newton shells. It is not necessary to clean your shells after using when using dense smokeless powders. It is necessary to resize just the necks of the shells. As to the desirability of changing to the .22 or .256 Newton, would say this is a matter of judgment upon which each man must pass for himself. If the improved ballistics are worth the extra cost the answer is easy. If not the answer is likewise easy. We consider the .45 Colt auto loading pistol to be very reliable, but it probably would not stand as much grief as the single action revolver. Using our factory loaded shells we would consider there would be very little difference in shooting quality of the two barrel lengths. In order to obtain the benefit of the longer barrel powder of a coarser granulation should be used. Lyman's receiver sight with small bead fore sight makes a good outfit for a carbine. The riot gun is devoid of choke and therefore makes a very large pattern with small shot. It would do for quail or other short range work.—Editor.

I am going to purchase a new gun for large game, such as moose, bear and sheep. What do you think of the Marlin Model '93, .38-55 carbine, and the Marlin Model '93 .33 caliber carbine high power? Which would be the better gun and in what length of barrel, 20, 22 or 24 in., solid or takedown; or do you know of some other rifle that would be better and what kind of bullet would be the better for that kind of game? Would you have the gun fitted with swivels and sling strap and what kind of sights do you consider the best? Are there any other rifles that have a better and easier action than the Marlin? What do you think of the self-loading rifles?—W. S. Shull, Shippensville, Pa.

Answer.—The .38-55 is not sufficiently powerful for moose or the heavier bear and it has too high a trajectory for sheep. The .33 caliber would be better. The length of barrel depends upon the individual taste, but we would advocate a solid action. Our recommendation would be a rifle using some of the military cartridges, such as the Winchester model 1895 using the .30 U. S. G. cartridge or some of the bolt action rifles. We would have it fitted with swivels and sling strap. Personally we like a peep rear sight and bead front sight. The self-loading rifles are very efficient at short range, but are not a long range gun. The trajectories are high at the longer ranges.—Editor.

Will you please answer the following questions for me by letter? 1. Are D. W. King's gold bead sights made so that the light focuses on the center of the bead? Can the sight be used as a full bead? What is meant by spark point on a bead sight? 2. Does D. W. King fit sights of his make to rifles when the sights are purchased of him? 3. Is the Stevens .22 rifle .044½ English model a neat looking rifle or is it a big, clumsy looking gun like the .44½? 4. Will a .22 caliber rifle of the Savage 1914 model work loose in the take down joint like the 1903 Savage? Will .22 caliber barrels that are rifled shallow and with a loose bullet fit shoot as hard and last as long as deep rifled barrel with a tight bullet fit? (The shallow rifled barrel in mind is the Savage). 5. Does the Stevens .22 caliber .044½ rifle weigh more than 6½ pounds on the average? Would this gun be too heavy for target and field shooting? (Of

course I use a 1906 .22 caliber Winchester, but I would like a good single shot). Will the Stevens Ideal rifle spit fire? Is the Savage 1914 more solidly built in the takedown joint than the Remington.—Arthur Shaver, Randall, Kan.

Answer.—(1) The light will focus at the center of the bead in practically all kinds of light, at least more so than on any other gold bead sight. The sight can be used perfectly as a full bead. The name "Spark Point" is applied to the King gold bead sight on account of the peculiar shape of the bead and also the material which shows as a "spark" at the point of the bead, allowing it to be seen plainly in poor light. (2) Mr. King will fit his sights to rifles or other arms if the arms are sent to him. However, as all his sights are interchangeable with the original factory sights, they are easily fitted and the expense unnecessary. (3) The rifle mentioned is a very neat trim looking rifle. (4) We think there is very little, if any difference, in the takedown adjustment of the two rifles. We think in .22 caliber barrels for rim fire ammunition there is very little difference in the shooting due to deep or shallow rifling. Obviously the deeper rifled one would last the longest but either should last as long as the owner. The Stevens .044½ does not weigh over 6½ pounds and is a nice light little weapon for target and field shooting. It will not spit fire at the rear. We have not seen either Savage or Remington which loosened in the joints, so cannot state which would last the longest.—Editor.

What does the catalog mean by the Colt .22 auto pistol using a .22 long rifle ground bullet? What does ground bullet mean? Is that the common .22 Lesmok L. R.? What shells are the best for damp climate, bulk or dense powder loaded? What is the most powerful and shocking cartridge, for .38 S. & W. Special pistol? Is the Colt .22 long rifle auto pistol reliable?—J. L. Boyle, Jackson, Miss.

Answer.—We do not know what bullet is referred to in your first question. We would suggest it might be a typographical error for "grooved" bullet. Dense smokeless powder shells are best for damp climate. We think there is little difference between the full loads for the .38 S. & W. Special. The Colt .22 caliber automatic pistol has not as yet been released for sale to the best of our knowledge. It has been advertised for more than a year. Therefore we cannot state whether or not it is reliable or why it has not been released.—Editor.

Can you use the .22 Newton bullet in a .22 High Power Savage?—L. L. Earhart, Hollenberg, Kas.

Answer.—You cannot use the .22 Newton bullet in the .22 High Power Savage, as it is too long and the rifling would not spin it.—Editor.

I would like to know if there are any 16 or 20 gauge automatic shotguns made. I have heard there was, but haven't ever seen one advertised. What length of barrel—28, 30 or 32 inches—is best for upland game and ducks in a double barrel or pump gun?—F. E. Warnken, Adrian, Mo.

Answer.—We know of no 16 or 20-gauge automatic shotguns made. We would prefer the 28-inch barrel for upland game and the 30 or 32-inch for ducks, altho with our present smokeless powders the length of barrel does not amount to nearly as much as it used to in the black powder days.—Editor.

# SPEED UP

TURN ON THE  
**JOY OF LIVING**  
 EVERY MORNING WHEN YOU TURN OFF THE  
**Shower Bath**



*You have always wanted a shower bath in your home.*

Here is a good one.

Just like the illustration, no cold clammy curtains, no need to wet the hair, easy to put on any tub with no additional expense.

Simple, good looking, never in the way, cannot get out of order, does not interfere with the old fashioned use of the tub.

Physical culture authorities everywhere recommend the SHOWER BATH—it's the 20th century way to bathe.

## The Kenney Needle Shower Bath is the shower you want

In a short time you'll note that your eyes are brighter, your skin clearer and your health better.

**THE PRICE IS \$6.00 COMPLETE**

*Shipped by insured parcel post anywhere in the U. S. A.*

*Money back if you don't like it after 5 days' trial.*

*Please mark your letter "Attention Mr. Hunter."*

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 DENVER, COLORADO

In Taxidermy is the result of years of experience—our natural, life-like mountings remind you of how the specimen looked when you drew your gun to shoot. Try our **QUALITY** work first.

We also have for sale an exceptionally attractive **BUFFALO HEAD**

a Mountain Sheep Head, and a White Sheep Head; unique ornaments for the Office, Home, or Den. Let us know what you are interested in, and we will send Photographs and prices; also our 32 page Catalog containing Field Guide, and records of North American Big Game, all FREE.

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Write us if you want the best

**IN TAXIDERMISTRY**

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of the chase, such as coon, fox, wolf, coyote, bear, and get a beautiful rug made. We put them up with the open mouth or closed mouth. We tan all kinds of furs for ladies' furs.

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**W. W. WEAVER, Custom Tanner**  
 READING, MICH.

**Outdoor Life \$1.50** The Year

**PROF. STAINSKY'S ART IN TAXIDERMISTRY**

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We have done mounting for the greatest sportsmen of America as well as some foreign countries and their letters, copies of which will be sent free on request, prove conclusively the art we put in our work.

OUR SPECIALTY IS MOUNTING BIG GAME SUBJECTS, BIRDS AND FISHES

**ORIGINAL AND UNUSUAL FURS**

Get a wonderful creation in fur cut from a perfectly tanned glossy new pelt or remade by remodeling a fur garment you already have. The result will be complete satisfaction. We have ladies' furs for sale or we will make ladies' furs to order from skins sent us.

**Game Heads and Fur Rugs For Sale**

**Stainsky Fur & Taxidermy Co.**  
 Colo. Springs, Colo.  
 Established in 1874



# AMONG THE TRAP SHOOTERS

CONDUCTED BY RUTH ALEXANDER PEPPE

## A SPORTSMAN'S DESCRIPTION IN PEN AND PICTURE OF THE TRY GUN.

The trapshooting department is deeply indebted to Mr. C. G. Williams ("Bill") for the following article which describes minutely and in detail the mechanism of the try gun of which we have read so much since last year. We feel that this story will be appreciated by our readers, more so on account of the drawing which explains itself. To further elaborate on the subject of the try gun would be painting the lily. Mr. Williams, we thank you.—Editor.

Editor Outdoor Life:—Now that the trapshooting season is opening up and nearly all of the "gun" men are oiling up their scatter-guns, the writer thought you might welcome a description of a "try gun." This is one of the pieces of mechanism that our English brother sportsmen have been using for years but which has not been imported into the old U. S. A. until recently. Last year the DuPont people ordered several "try guns" from across the water and placed them in the hands of their representatives so that any shooter could have the actual measurements taken for a stock that will fit him better than his own shoes, if he so wishes, and is shooting at any of the many trapshooting tournaments where their representatives happen to be attending.

It is getting to be recognized more and more among sportsmen, especially amongst trapshooters, where the little things are magnified greatly, and which oftentimes make all the difference between a winner and a loser, that the best shooting can be done only with a gun the stock of which is built to suit the peculiarities of each human frame, and the recognition of this fact led the English gunmakers to devise the "try gun."

It stands to reason that some short, dumpy fellow can not do the best work with

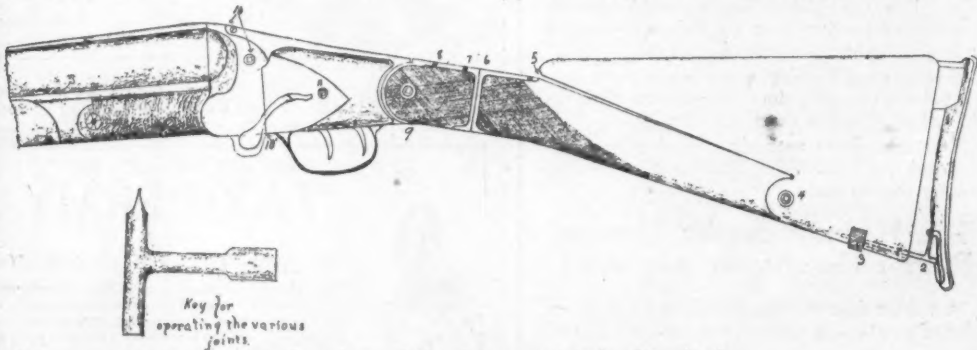


MRS. ADA SCHILLING,

Of San José, Calif.; lady champion of the Pacific Coast; winner in 1914 and 1915; weight, 92 lbs.

I picked the first one to pieces and after seeing how it was made and what run the "dinged" thing, proceeded to make a drawing to show the various "do-ding" uses that made it squirm around to fit any "old boy's" form.

At first sight it looked like an old side-lever breech-loader that had been thru the Civil War and several other conflicts, as it is only upon close examination that the va-



A drawing of the try gun herein described.

the gun that fits some long, lank six-footer, nor could some little five-foot-three slim shooter do his best with a gun that fits big, genial Tom Marshall, and it is only within the last couple of years that this fact has seemed to penetrate the heads of trapshooters, and from now on the writer anticipates seeing all kinds of monstrosities in the form of stocks adorning the various guns at trap shoots.

It has been the writer's luck to see two "try guns," one in Canada and one in the United States. Being of an inquisitive mind

rious cracks and crevices are brought to notice for what they really are.

This model (of which, by the way, the writer does not know the name of the maker), has all the various ingenious methods of adjustments necessary to get the measurements of stock to fit any and all shooters. A study of the accompanying drawing will show these, and they have been numbered to more readily call the reader's attention to them.

The skeleton butt plate for getting the correct length of stock is indicated by num-

# Teach Them To Shoot

Don't corner all of the sport. Teach your brother, father or sister to shoot. Show them the fun they can have with a gun. Get them out to the

## BEGINNERS' DAY SHOOTS

Last year these shoots were a striking success at every live gun club in the country. This June they will be bigger than ever with beautiful trophies for all of the winners.

### Fobs for the Men

A beautiful Sterling watch fob will be given to each man (beginner) making the best score at each Beginner's Day Shoot.

### Spoons for the Women

A Sterling Silver Spoon of artistic design will be given to each woman (beginner) making the best score at each shoot.

### Cups for the Club

The two clubs in each state having the largest number of beginners participating in each shoot will receive a beautiful silver loving cup.

## June is the Month

Get ready now! Any club in the country may hold a shoot on any day or days in June. Get your members working. Have each one pledge himself to bring at least one beginner. Write at once for full details and conditions

*Trapshooting Department*

**E. I. du Pont de Nemours & Co.**  
Wilmington, Delaware

If you are a beginner write for a letter of introduction to the secretary of the nearest club holding a Beginner's Day Shoot.



**First Prize to Clubs**  
Silver loving cup  
nine inches high.

**Second Prize to Clubs**  
Silver loving cup  
seven and one-half  
inches high.



ber (1). This butt plate is flexible and controlled by a mechanism (2) worked by the lock nuts (3) in such a manner that a different length of heel, center and toe, and their relation to each other, can be readily controlled. The height of comb (5) is regulated by the bolt (4) while the amount of drop in the stock is controlled by the joint (9). As some shooters are addicted to "canting" the gun, as it is called when the gun is revolved on its own axis by throwing the comb away from or towards the shooter's face, this fault can be corrected by the joint (6) actuated by the two screws (7 and 8). In order to get the line of sight correct for all shooters, it is sometimes necessary to offset the stock either to the right or to the left, and this is done by the joint and bolt at 10 and 10'.

In this style of gun the safety was regulated by the screw (11) so that by turning it in one direction the safety was thrown out entirely and one could shoot all day without ever thinking of the safety at all, while a half-turn in the opposite direction set the safety so that the button had to be changed at every shot.

It was the writer's intention to buy some cheap gun and remodel the stock until it conformed to the drawing, and that is why I took so much time to make the drawing and write out the description, but up to the present time this has not been done. So I will turn the knowledge over to all sportsmen alike and if they wish to profit by it they can do so.

The key by which all of the various movements of sections of the stock are made is also shown.

Wyoming.

BILL.



Supt. Robinson, Beldeman Gun Club,  
Camden, N. J.

#### OKLAHOMA STATE SHOOT.

An uneasy stir—a calm that always precedes a storm—then a biff! boom!! bang!!! and the referee's encouraging assurance—"Dead"—and the seventeenth annual tournament of the Oklahoma State Sportsmen's Association was on. It was held April 17, 18 and 19 at Oklahoma City, and between 80 and 90 shooters faced the traps and sent the little saucers flying into kingdom come. Even a high, blustery wind did not seem to have any effect on most of the targets, some excellent scores being marked up. At the preliminary shoot on Monday, the 18th, Ed. O'Brien, that genial Irishman from Flor-

ence, was high over all with 98, followed by A. V. Cocks of Texas, with 97. On the first day G. C. Spencer (not Chas. G. of St. Louis) scored 191x200, making three straights, five 19s and two 18s. Chas. Homer followed with 189. On the second day Harve Dixon broke 97 and Art Killam 95.

A resumé of the events follows:

Shooting at 100 targets for state championship for 1916, J. N. Walker of Spiro, Okla., 94x100; W. R. Campbell of Drumright, 93.

Shooting at 400 targets, Harve Dixon, high amateur average, 373; second amateurs, tie, Wm. Lambert and A. V. Cocks, 370; third amateur, W. R. Campbell, 369; fourth, G. C. Spencer, 367.

In the professional class Art Killam of St. Louis scored 374; Ed. O'Brien of Florence, Kan., 369; J. B. Sulloway and K. L. Eagen each 366, and J. W. Keating 363.

The annual business meeting was held Tuesday night and an incident showing the real channel which the "sport alluring" is cutting, was the earnest talk, appealing for more and better game protection and propagation for his state, and resolutions were passed endorsing the good work of Game Warden John Chenoweth. Judge S. H. Harris was re-elected president; D. W. Frauchot of Tulsa, vice president; J. W. Appleman of Tulsa, secretary; J. A. Campbell of Tulsa, treasurer, and S. T. Mallory of Tulsa, field captain. The state shoot will be held at Tulsa next May.



Mrs. B. P. Remy of Indianapolis, winner of  
Outdoor Life's Tri-State Trophy;  
score, 46x50.

#### COMING EVENTS.

May 29-31 are the dates for the California-Nevada state tournament, to be held at San José, Calif., under the management of O. N. Ford, secretary of the San José Blue Rock Club.

May 30-June 1, at Waterloo, Ia., will be held the Iowa state tournament under the auspices of Waterloo Gun Club, Lou Witry, secretary.

May 26-27, at Nashville, Tenn., will be held the Tennessee state tournament, under the auspices of the State Fair Gun Club, John H. Noel, secretary.

May 31, the Utah state tournament will be held under the auspices of the Utah State Sportsmen's Association, A. R. Bain, secretary.



"I could not have got him if I did not have a Ross .280."

This is what Mr. F. F. Hammond of 3 Miles Plains, N. S., says in a letter telling how he obtained the fine head shown in the above photo. He also adds:

"The guide told me it was 1000 yards, but it was only 400. He said I could not have done better shooting if I had held the rifle right up against the Moose."

A Ross .280 rifle is a guarantee of a successful hunt. Retails at \$55.00 at the best dealers. Ammunition \$7.50 per 100.

For Catalogues and full information address direct or

Post & Floto, 14 Reade St., New York  
Agents for the U. S. A.



Ross Rifle Co.,  
Quebec, Canada.



This is the Simplest Gun Mechanism

Instant Action  
—one-piece

THESE three are the only working parts. The rotary bolt is guaranteed for ever to prevent "shooting loose."



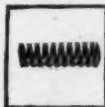
Coil springs used throughout Fox Guns—they're "guaranteed for all time."

The rotary bolt prevents "shooting loose"

The one piece Fox hammer and firing pin give permanent instant-action.

Fox Guns cost no more than ordinary guns —\$25.00 to \$1000.

Write us for Fox catalog, and any desired special information.



Coil springs are used—guaranteed for life

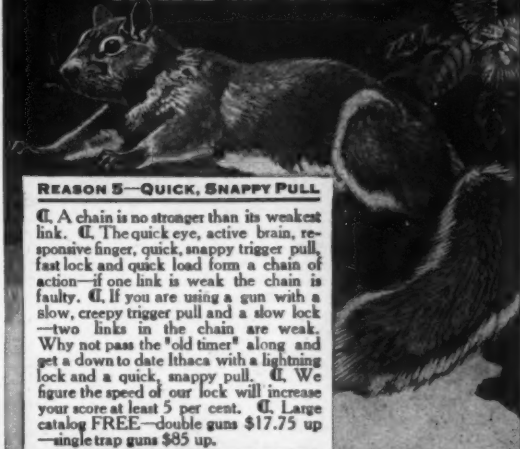
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**FOX GUN**

Guaranteed for Life

# SHOOT Ithaca Guns

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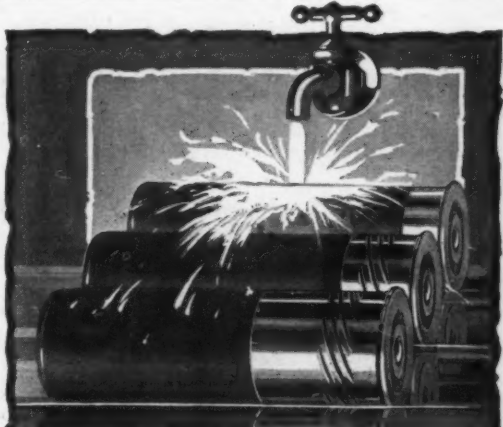


**REASON 5—QUICK, SNAPPY PULL**

Ⓒ A chain is no stronger than its weakest link. Ⓒ The quick eye, active brain, responsive finger, quick, snappy trigger pull, fast lock and quick load form a chain of action—if one link is weak the chain is faulty. Ⓒ If you are using a gun with a slow, creepy trigger pull and a slow lock—two links in the chain are weak. Why not pass the "old timer" along and get a down to date Ithaca with a lightning lock and a quick, snappy pull. Ⓒ We figure the speed of our lock will increase your score at least 5 per cent. Ⓒ Large catalog FREE—double guns \$17.75 up—single trap guns \$85 up.



ITHACA GUN CO.  
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**Waterproof**

Place a Black Shell in water. Let it dry, and put it in your gun. It chambers and ejects perfectly and fires as though it had never been wet.

**US<sup>T</sup> BLACK SHELLS**

Smokeless and Black Powders

Ask your dealer for information about these tests and how to obtain free shells for testing. If he cannot tell you, have him write us for details.

United States Cartridge Co., 2482 Trinity Building, New York

## Books for the Sportsman.

The Elk, Their Home and Habits, by S. N. Leek, Jackson, Wyo.

This is a portfolio of elk scenes photographed by Mr. Leek in and adjacent to Jackson's Hole, Wyo. There are twelve views (8x6 in.) attractively tipped on heavy brown sepia paper (11x8½ in.), while two pages of interesting descriptive matter adorn the front part of the work.

The Book of the Motor Boat, by A. Hyatt Verrill; 200 pages; illustrated; \$1.00 net; D. Appleton & Co., New York.

This is a complete and reliable handbook dealing with the modern motor boat and its motor. With this book as a guide the most inexperienced can learn to operate and handle a motor boat under all conditions and in all sorts of weather. There are chapters on short-cuts, and handy hints on repairs, simple navigation, safety appliances, installation, upkeep, etc.

The Golden Woman, by Ridgway Cullum; 447 pages; \$1.35 net; Geo. W. Jacobs & Co., Philadelphia.

The scenes of this work are laid in the Montana hills, where trails are the highways and a hollow in some cliff the only shelter. The squalid mining camp, where riotous misrule is king; the resistless lure of gold; the primitive society and elemental life conditions of the scarce-won wilderness; the wild play of mountain forces, violent beyond any imaginings of the tenderfoot—these and other potent elements enter largely into the novelist's complex and romantic narrative.

Modern Starting, Lighting and Ignition Systems, by Victor W. Page, M.E.; illustrated; \$1.50; the Norman W. Hensley Pub. Co., New York.

This practical volume has been written with special reference to the requirements of the non-technical reader desiring easily-understood explanatory matter relating to all

(Above books for sale by Outdoor Life. Postage Extra.)

types of automobile ignition, starting and lighting systems. It can be understood by anyone, even without electrical knowledge, because elementary electrical principles are considered before any attempt is made to discuss features of the various systems. These basic principles are clearly stated and illustrated with simple diagrams. All the leading systems of starting, lighting and ignition have been described and illustrated with the co-operation of the experts employed by the manufacturers.

How to Add Ten Years to Your Life, by S. S. Curry, Ph.D., Litt.D.; 133 pages; \$1.00; The Expression Co., Boston.

The book advocates simple exercises, stretches, deep breathing, laughter and a few simple movements which every one should take. The author claims that by following the simple suggestions laid down in this book, ten years may be added to a person's life.

Fishing With a Worm, by Bliss Perry; 50 cents; Houghton, Mifflin Co., Boston.

Professor Perry leads us thru the tangled bushes that edge a black New England brook. Like every "complete" angler, he is something of a philosopher, and when he mingles his angling and his philosophy in an essay written in his usual delightful style, the result is tempting bait for the reader's leisure hour.

C. S. R. Blue Book of Dogdom, by F. J. Skinner; 190 pages, illustrated; \$1.00; the C. S. R. Co., New York.

This is the eighth annual volume (Part Two) of the Blue Book of Dogdom. It gives the standards of the breeds recognized by the A. K. C., from the rules governing Dog Shows, in effect Jan. 1, 1910; amended Feb. 13, 1912; amended Feb. 18, 1913; amended Sept. 16, 1913.

## Notes.

In our March number of this year we published some verses entitled "Out Fishin'" over the signature of M. J. Webb. Mr. Webb, last winter, in renewing his subscription to Outdoor Life, enclosed these verses in type-writer form, with no name attached to them. In his letter, however, he requested us to publish the verses, which led us to believe that he was the author. We have since learned that they were written by Edgar A.

Guest, and were sent us by Mr. Webb with no intention to deceive, but merely because he liked their ring. We trust this explanation will show to Mr. Guest how very sorry we are that the mistake occurred.

Mr. T. H. Keller, known to the trade and a large circle of friends as "Haze," on May 1st assumed the position of assistant manager of the New York branch of the Peters Cartridge Company.

## Statement.

Statement of the ownership, management, etc., of Outdoor Life, published monthly at Denver, Colorado, required by the Act of August 24, 1912: Editor, J. A. McGuire, Denver, Colorado; managing editor, J. A. McGuire, Denver, Colorado; business manager, A. M. Rapp, Denver, Colorado; publisher, Outdoor Life Pub. Co., Denver, Colorado.

Owners (if a corporation give its name and the names and addresses of stockholders holding 1 per cent or more of total amount of stock): the Outdoor Life Publishing Co., J. A. McGuire, only stockholder owning one

per cent or more of total amount of stock.

Known bondholders, mortgagees and other security holders, holding 1 per cent or more of total amount of bonds, mortgages or other securities: None.

(Signed) J. A. McGUIRE,  
Editor, Publisher and Owner.

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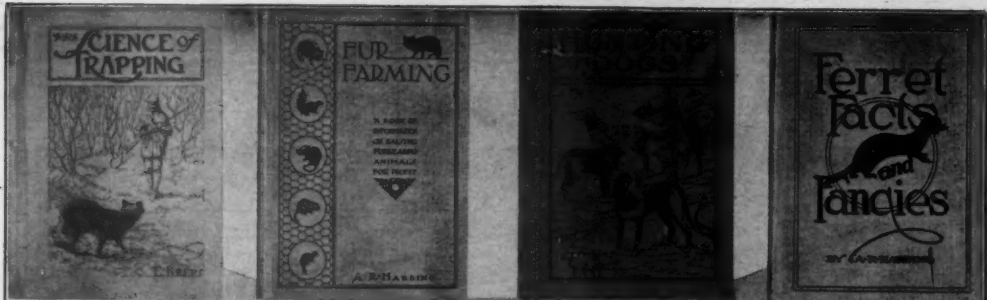
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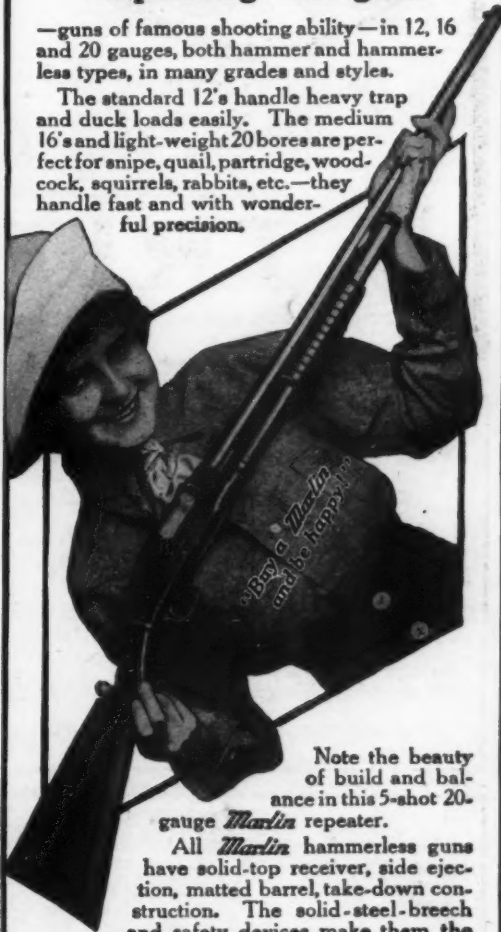
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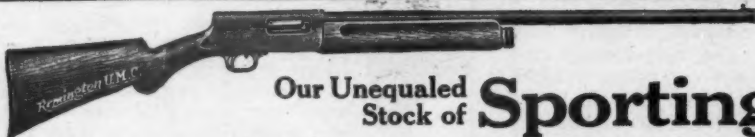
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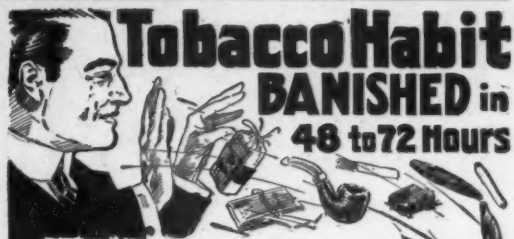
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SPENCER

## THE BIG WINNER IN 1915

THE Interstate Association's Official High Professional Average for the season of 1915 was won by Charles G. Spencer, of St. Louis, Mo., with the marvelous record of 97.5% for 5620 targets. Such an average for such a large number of targets not only shows Mr. Spencer's great skill, but also proves the uniform and unequalled quality of

# WINCHESTER

*Loaded Shells and Shotguns*

which Mr. Spencer used exclusively. He used this same combination when he made his marvelous straight run of 565 targets—the World's Record.

Contests for the Season's Trapshooting Averages have been held 16 times and 12 of them have been won by **W** shells or guns, or both, which is undeniable evidence of their superiority.

Lester German, of Aberdeen, Md., who was second high for the season, and who also made the greatest score of the year for a single tournament—499x500—used Winchester shells in performing this great feat.

J. Mowell Hawkins, of Baltimore, Md., shot 7,265 targets in competition during 1915, and made the splendid average of 95.56%, using Winchester shells and shotguns exclusively—more proof of their uniform shooting qualities. These performances show the reason why Winchester shells and guns are



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